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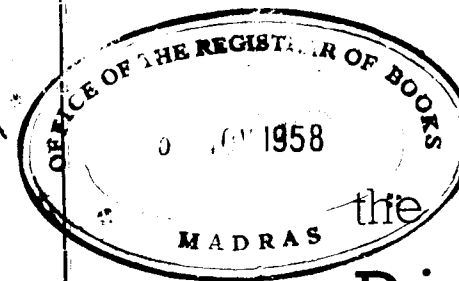
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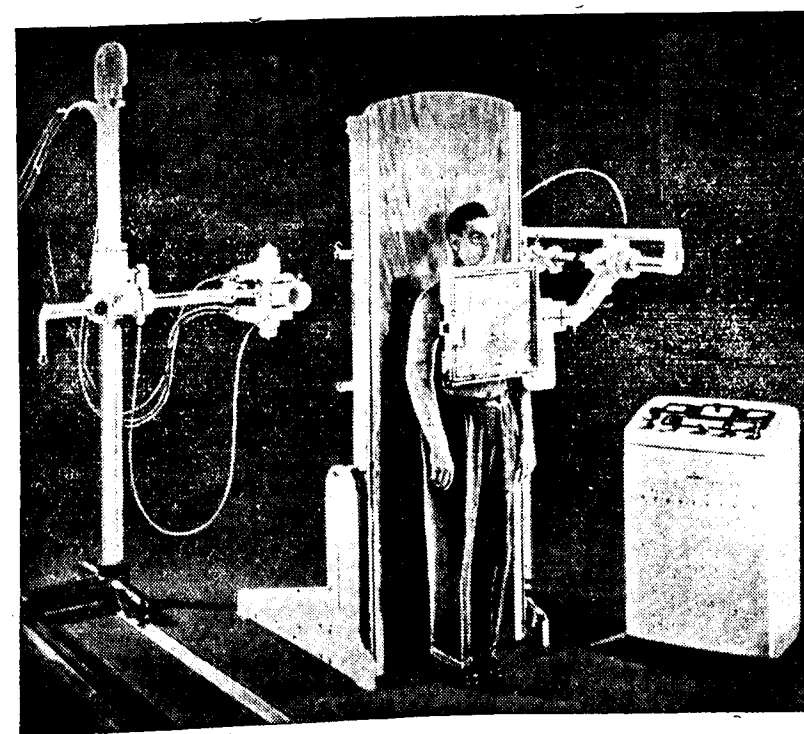
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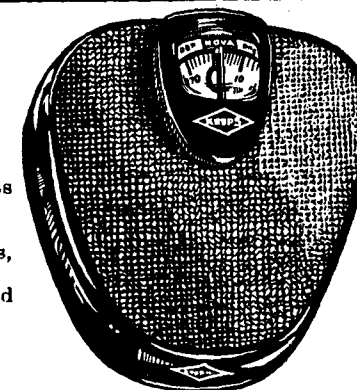
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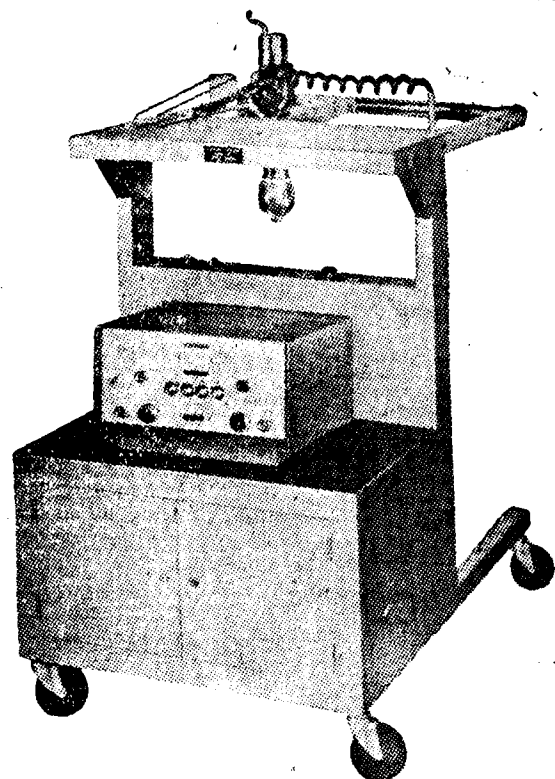
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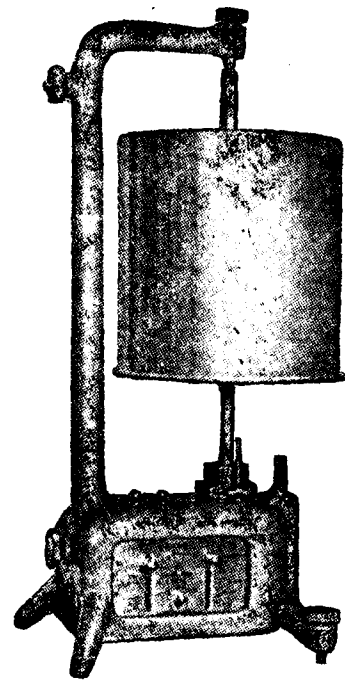
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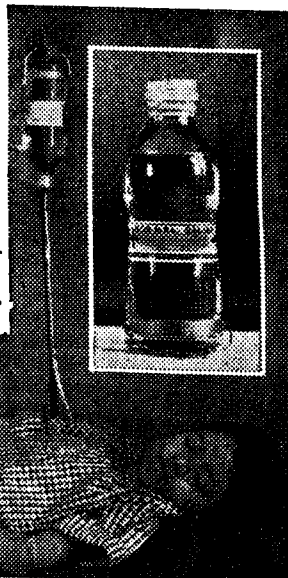
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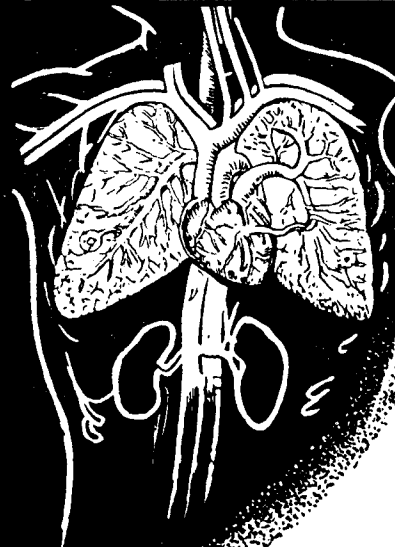
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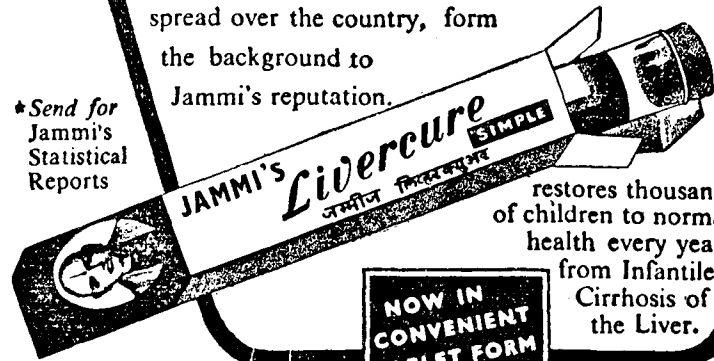
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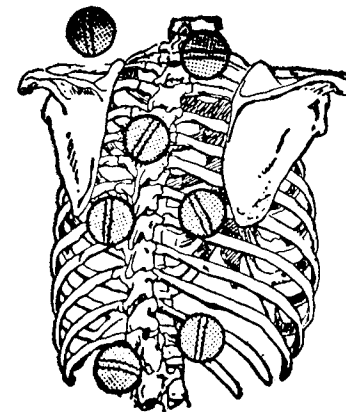
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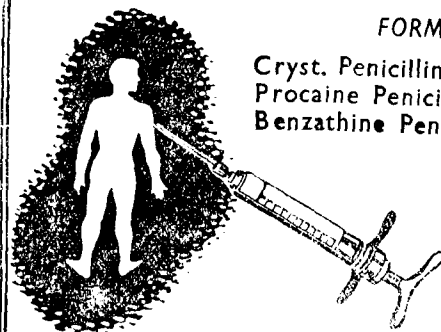
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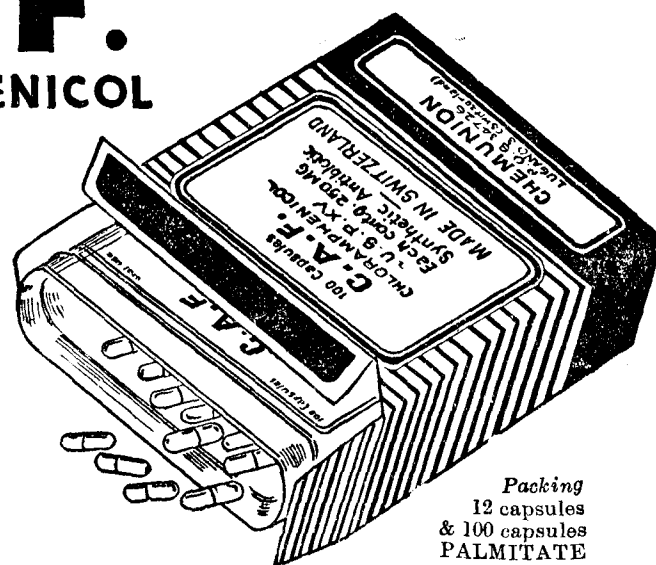
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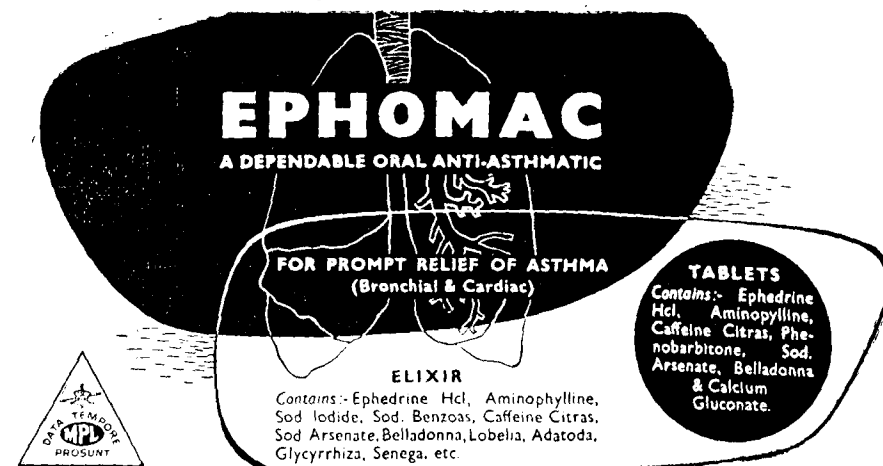
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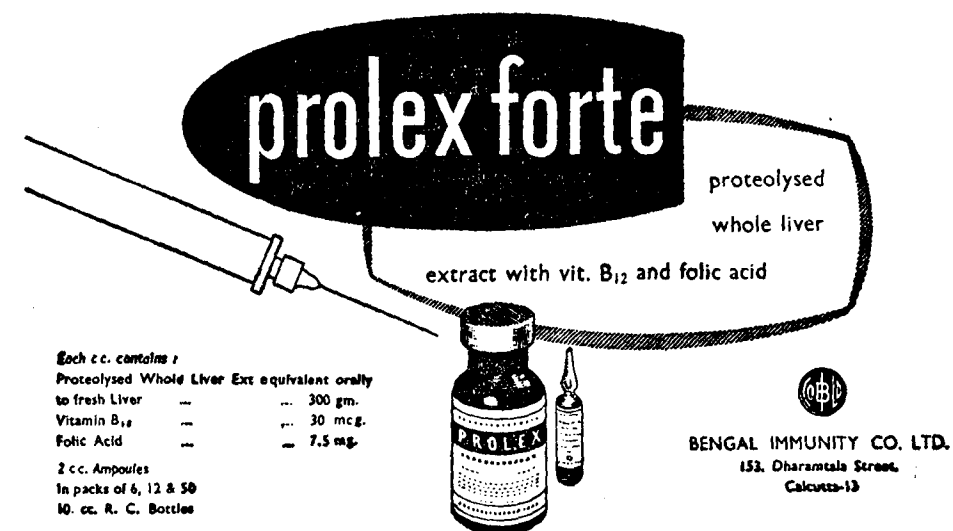
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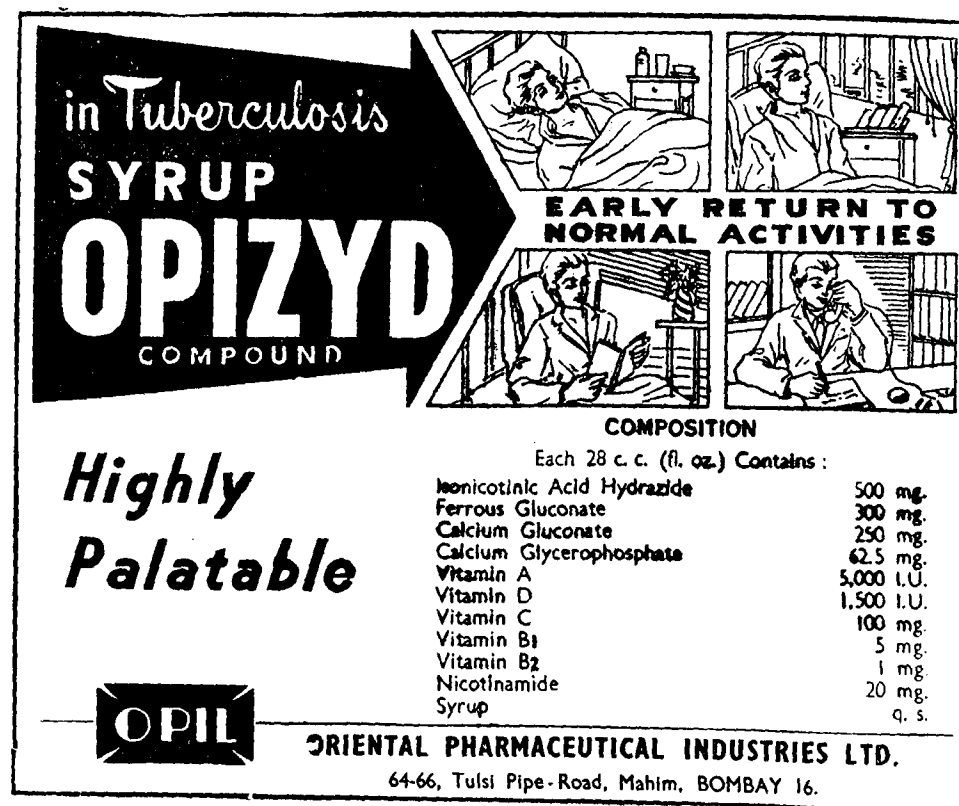


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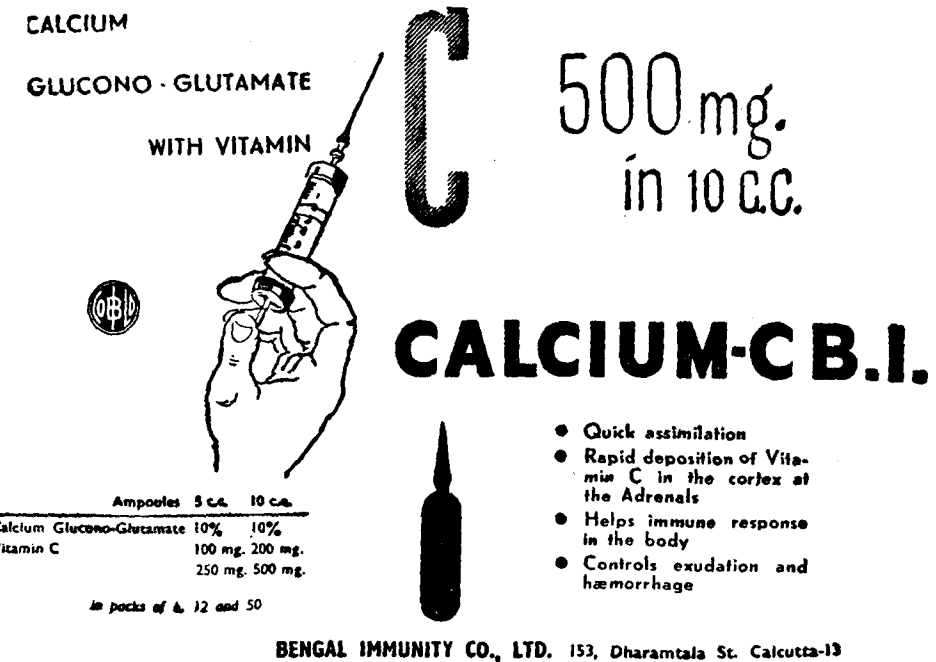
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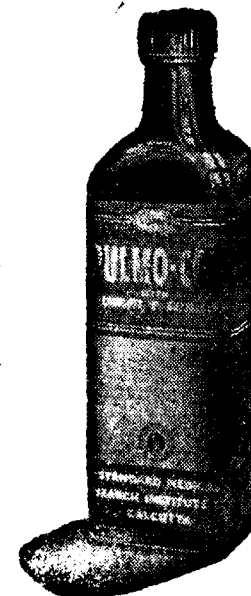
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Ms L. No DL 92 M
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STADMED PRIVATE LTD., CALCUTTA-4

STADMED
PULMO COD
(Creosote & Guaiacol)

Each fluid oz. contains:
Pancreatic hydrolysate
of shark & Codliver Oil
50% v/v

Vitamin A	4500 I.U.
Vitamin D	1000-0 I.U.
Vitamin B ₁	3 mg.
Vitamin B ₂	3 mg.
Vitamin B ₁₂	5-0 mcg.
Nicotinic Acid	40 mg.
Folic Acid	920 mcg.
Sodi Hypo.	120 mg.
Potassi Hypo.	120 mg.
Calcil Hypo.	240 mg.

{ Creosote 13%
Guaiacol 1%

Extract Wild Cherry,
Gentian, Eucalypt. 0.7%
Invert Sugar, Glycerine,
Malt & Aromatics q.s.

STADMED PRIVATE LTD.
15, JAWPORE ROAD,
CALCUTTA-30



REJUCALCIUM^{B.C.D.}
(TABLETS)

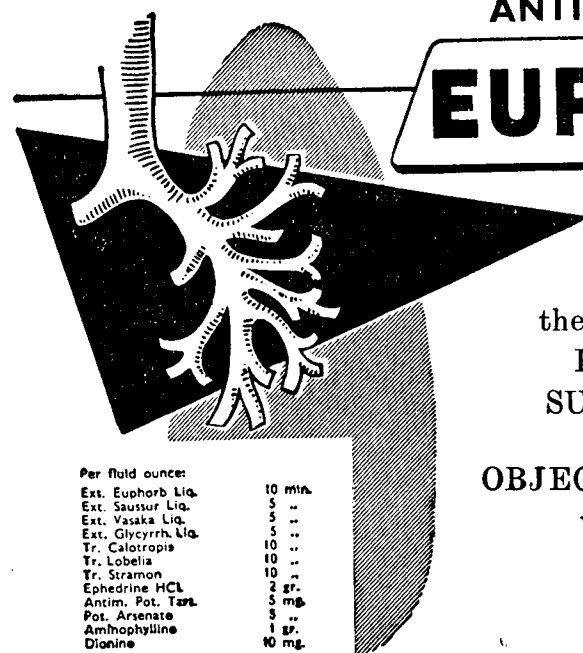
IDEAL CALCIO-VITAMIN TONIC
WITH BLOOD-FORMING HEMATINICS
FOR HYPOCALCA & AVITAMINOSIS

Vitamin B Complex Ext. Contg. Vitamin B 1,
Vitamin B 2, Vitamin B 6, Calcium Gluconate, Calcium-
Phosphate, Vitamin D, Vitamin C, Cryst. Iron Sulphate, Copper
Sulphate, Manganese Sulphate.

Telephone : 4930

Cables : Multamine

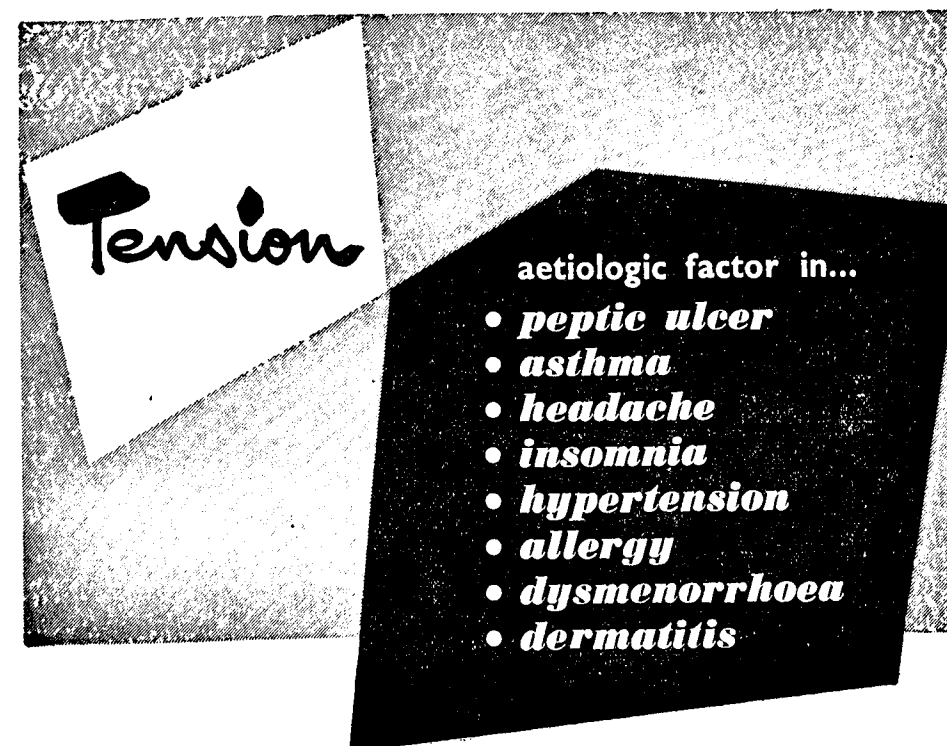
INDO-FRENCH PHARMACEUTICAL CO., CATHOLIC CENTRE, MADRAS-1

A POTENT
ANTI - ASTHMATIC**EUPHOMIN**

the therapy that affords
PROMPT RELIEF
SUSTAINED ACTION
and
OBJECTIVE IMPROVEMENT
without side-effect.

Per fluid ounce:	10 min.
Ext. Euphorb. Liq.	5 "
Ext. Sassa. Liq.	5 "
Ext. Vasaka Liq.	5 "
Ext. Glycyrrh. Liq.	5 "
Tr. Calotropis	10 "
Tr. Lobelia	10 "
Tr. Scammon	10 "
Ephedrine HCL	2 gr.
Antim. Pot. Tars.	5 mg.
Pos. Arsenate	5 "
Amphophylline	1 gr.
Dionine	10 mg.

THE MYSORE NUTRIMENTS, BANGALORE 2



Tension

aetiologic factor in...

- **peptic ulcer**
- **asthma**
- **headache**
- **insomnia**
- **hypertension**
- **allergy**
- **dysmenorrhoea**
- **dermatitis**

Clinical evidence throughout the world is mounting on the need for treating Peptic Ulcer, Asthma, Headache, Insomnia, Hypertension, Allergy, Dysmenorrhoea, Dermatitis, etc., by alleviating tension which often manifests itself by "symptoms" characteristic of diseases commonly described as those of unknown aetiology. EQUANIL as the most effective of tranquillising compounds is now widely used in these conditions and may eventually replace symptomatic measures currently employed.

Dose: 1 tablet 4 times daily

**Equanil[®]**
TabletsSupplies : 0.4 Gm. Tablets in bottles of 20 and 100.
0.2 Gm. Tablets in bottles of 20.

JOHN WYETH & BROTHER LIMITED

(Incorporated in England with Limited Liability)

Steelcrete House, Dinshaw Wacha Road, Bombay 1



*Trade Mark

J. 39

Serpasil

**antihypertensive
bradycardiac
tranquillizer**

new indications

- 1** anxiety, tension, nervousness, hyper-emotionalism.
- 2** neuropsychiatric conditions, such as schizophrenia, paranoia, manic states.
- 3** gynecologic disorders associated with anxiety and tension.
- 4** dermatologic conditions in which psychogenic factors are involved.

C I B A

T. C. F. Ferilex

*A tonic of proteolysed
liver and N.F. liver fraction II
with yeast, stomach extract,
iron, vitamin B₁₂, cobalt sulphate,
methionine, choline chloride etc.
For conditions of debility and various
types of anaemias in the tropics.*

A Product of
JEDDINGTON CHEMICAL FACTORY PRIVATE LTD.
Surén Road, Andheri, Bombay.

Sole Distributors:
W. T. SUREN & CO. PRIVATE LTD.,
P. O. Box 229, Bombay I.
Branch: Calcutta: P.O. Box 672
Madras: P.O. Box 1286.



Available in bottles of 50 cc.
100 cc. 170 cc. and 450 cc.



2 tablets to alleviate pain

'Anacin' is a non-toxic and clinically dependable analgesic and antipyretic combining Quinine, Phenacetin, Caffeine and Acetyl Salicylic Acid to provide powerful synergistic action against neuritis, neuralgia, rheumatism, muscular pain, headache, toothache and influenza. Often, a single dose of 2 tablets will alleviate the distress of pain and impart a sense of well-being.

'ANACIN'

ANALGESIC TABLETS

In packets of 2 tablets,
containers of 32 tablets and
bottles of 500 tablets

Made in India by:

GEOFFREY MANNERS & COMPANY PRIVATE LIMITED
Magnet House, Dougall Road, Bombay I.

Trademark Proprietors:

WHITEHALL PHARMACAL COMPANY, NEW YORK, U.S.A.

Keys to good health...

"...good nutrition is important for the maintenance of optimum health in all normal individuals ... Good nutrition is essential for normal organ development and function; for normal growth and maintenance; for optimum working efficiency; for maximal resistance to infection ... and in the restoration of good health...."

Raviplex, in a well-balanced formulation, supplies the essential vitamins required to maintain healthy physical and psychologic functioning. It is ideal both for prevention and cure of deficiency conditions because of its high vitamin content

RAVIPLEX

(Brand of multivitamins)

A concentrated high potency, multivitamin formulation

LIQUID	TABLETS
Deliciously flavoured; available in pilfer-proof bottles of 2 oz., 4 oz. and 1 lb.	Coated tablets available in pilferproof bottles of 25, 100 and 1000.

1. Pollack, H., and Halpern, S.L.: Therapeutic Nutrition, publication 234, N.R.C., Washington, D.C., 1952.

RAVISON

POTENCY • PREDICTABILITY • PURITY

RAVISON DRUGS PRIVATE LIMITED

Post Bag 10010, BOMBAY I

• Trademark

Good habits begin early



"The Daily Becadex Habit" is the easiest way to ensure vitamin sufficiency throughout life. BECADEX contains all the vitamins required to promote a healthy growth and increase resistance to infection. BECADEX DROPS are ideal for the breast-fed and bottle-fed infant and the young child; BECADEX TABLETS for the adult and adolescent.

Becadex

DROPS: In bottles of 15 cc. with special dropper.
TABLETS: In bottles of 25, 100 and 500.



GLAXO LABORATORIES (INDIA) PRIVATE LTD. Bombay • Calcutta • Madras • New Delhi

K. 43

[32]

Oral Penicillin with

injection performance

WYOPEN VEE

Potassium Penicillin V 125 mg.

AND

WYOPEN VEE SULFAS

Potassium Penicillin V 90 mg.

Sulphadiazine 0.25 Gm., Sulphamerazine 0.25 Gm.

INDICATIONS

Haemolytic Streptococci	upper respiratory tract and urinary tract infections, erysipelas, impetigo, cellulitis
Pneumococci	pneumonia
Meningococci	meningitis
Staphylococci	often implicated in diseases of the meninges, lungs, bone, skin and urinary tract
Gonococci	diseases of the eye, urethra, joints
Str. faecalis and E. Coli	diseases of the urinary tract
H. influenzae	laryngotracheobronchitis, pneumonia
and	In bacillary enteritis caused by some Shigella and coliform organisms

Dosage: 2-4 tablets initially, followed by 1 or 2 tablets every six hours. Reduced dose for children.

Supplied: Containers of 12 Tablets.



JOHN WYETH & BROTHER LIMITED

(Incorporated in England with Limited Liability)

Steelcrete House, Dinshaw Wacha Road, Bombay 1.

Trade Mark

[33]



SOOTHING
SEDATIVE
TRANQUILIZING
ASRAUFIN

Specific for the treatment of mental maladies and hypertension, contains total extract of whole root of

Rauwolfia Serpentina

has gradual and durable effect and no undesirable side-effects.

Its administration is simple.

It relieves tension like the lever of a clock.

A Classical Remedy

"Crude extracts have more of a sedative action"

—Dr. R. Heilig, Indian Practitioner, 1955

Hamdard
DAWAKHANA (TRUST) DELHI

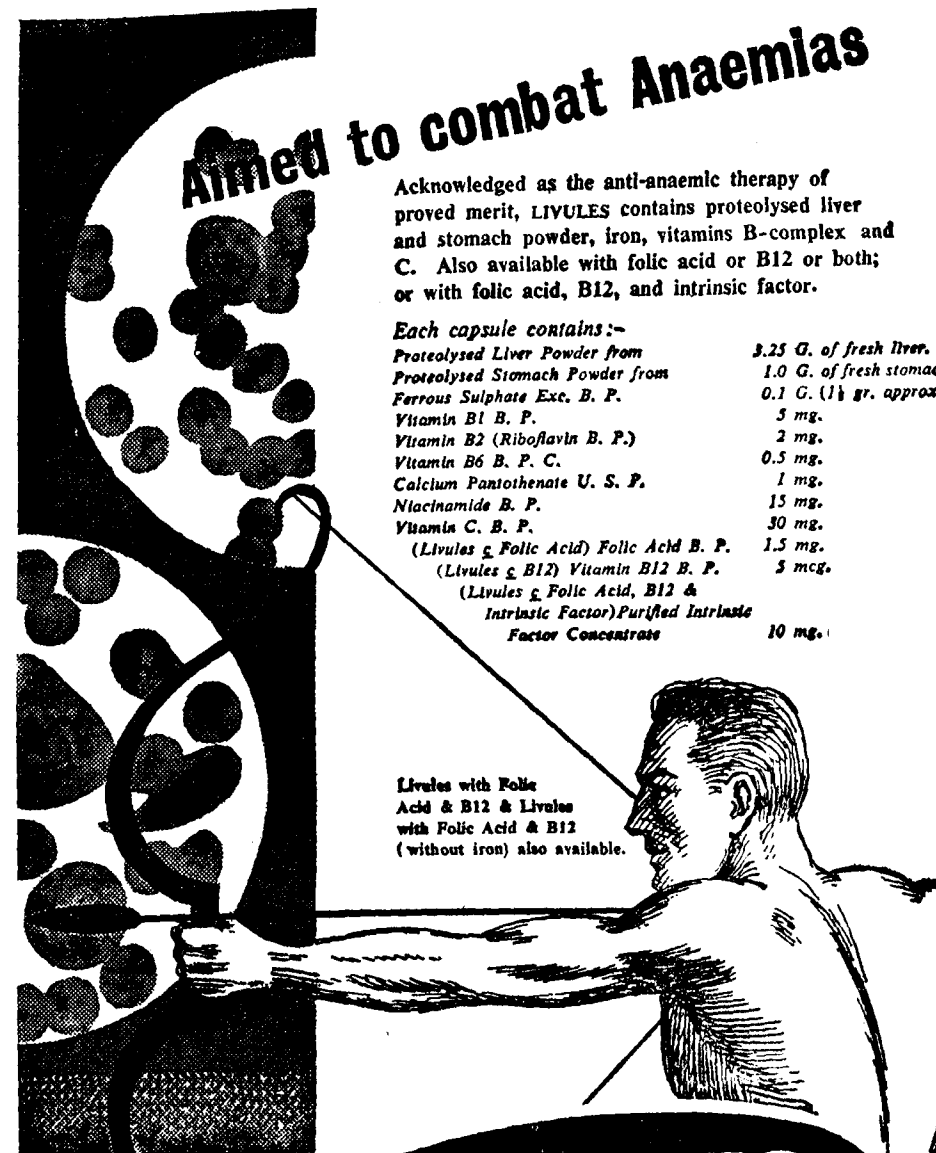
Aimed to combat Anaemias

Acknowledged as the anti-anaemic therapy of proved merit, LIVULES contains proteolysed liver and stomach powder, iron, vitamins B-complex and C. Also available with folic acid or B12 or both; or with folic acid, B12, and intrinsic factor.

Each capsule contains:-

Proteolysed Liver Powder from	3.25 G. of fresh liver.
Proteolysed Stomach Powder from	1.0 G. of fresh stomach.
Ferrous Sulphate Exc. B. P.	0.1 G. (1 1/2 gr. approx.)
Vitamin B1 B. P.	5 mg.
Vitamin B2 (Riboflavin B. P.)	2 mg.
Vitamin B6 B. P. C.	0.5 mg.
Calcium Pantothenate U. S. P.	1 mg.
Niacinamide B. P.	15 mg.
Vitamin C. B. P.	30 mg.
(Livules & Folic Acid) Folic Acid B. P.	1.5 mg.
(Livules & B12) Vitamin B12 B. P.	5 mcg.
(Livules & Folic Acid, B12 & Intrinsic Factor) Purified Intrinsic Factor Concentrate	10 mg.

Livules with Folic Acid & B12 & Livules with Folic Acid & B12 (without iron) also available.



LIVULES

(One more variety—
LIVULES & Intrinsic Factor—
recently introduced)

ALEMBIC CHEMICAL WORKS
CO. LTD. BARODA-3.



YOU CAN PUT YOUR CONFIDENCE IN ALEMBIC.

ENTEROMYCETIN

OTIC SOLUTION

ENTEROMYCETIN Otic Solution contains 10% Chloramphenicol in propylene glycol base providing local bactericidal concentration in each drop to the commonly occurring organism in acute or chronic otorrhoea.

INDICATION

Acute or Chronic otorrhoea particularly due to B. Coli, Strepto, Staphylo, Proteus, Pseudomonas, etc.; following ear operations (Mastoid); it can also be used topically in other wound infections, e.g. infected ulcers, pedicle flaps, skin grafting, abscess cavities, etc.

HOW TO ADMINISTER

With the affected ear upwards, clean the discharges as far as possible instill enough solution to half fill the meatus, allow it to enter the middle ear cavity by pressing the tragus in and out. A cotton wick may be inserted well down the meatus and soaked in solution to be kept in situ. To be instilled three times a day for about two to three weeks.

MANUFACTURED BY



G. ZAMBON & CO. S.p.A.
VICENZA • ITALY

EXCLUSIVE DISTRIBUTORS



DEY'S MEDICAL STORES PRIVATE LTD.
CALCUTTA • BOMBAY • DELHI • MADRAS

Presenting

SAFLOXIN

'CIPLA'

**AN EMULSION OF
ESSENTIAL UNSATURATED FATTY ACIDS
FOR PREVENTING & LOWERING OF
HIGH CHOLESTEROL BLOOD LEVELS.**

Research about the relationships between serum lipids and lipoproteins and atherosclerosis has shown that saturated fats (animal) contribute to hypercholesteremia and atherosclerosis when they are consumed in sizable amounts. On the other hand unsaturated fats—those obtained from certain vegetables and fish oils—appear to have a protective action in that they reduce cholesterol levels even in the presence of saturated fats in the diet.

Safloxin is a palatable emulsion of Safflower Oil and some vitamins for administration in all cases of hypercholesterolemia, arteriosclerosis and myocardial infarction.

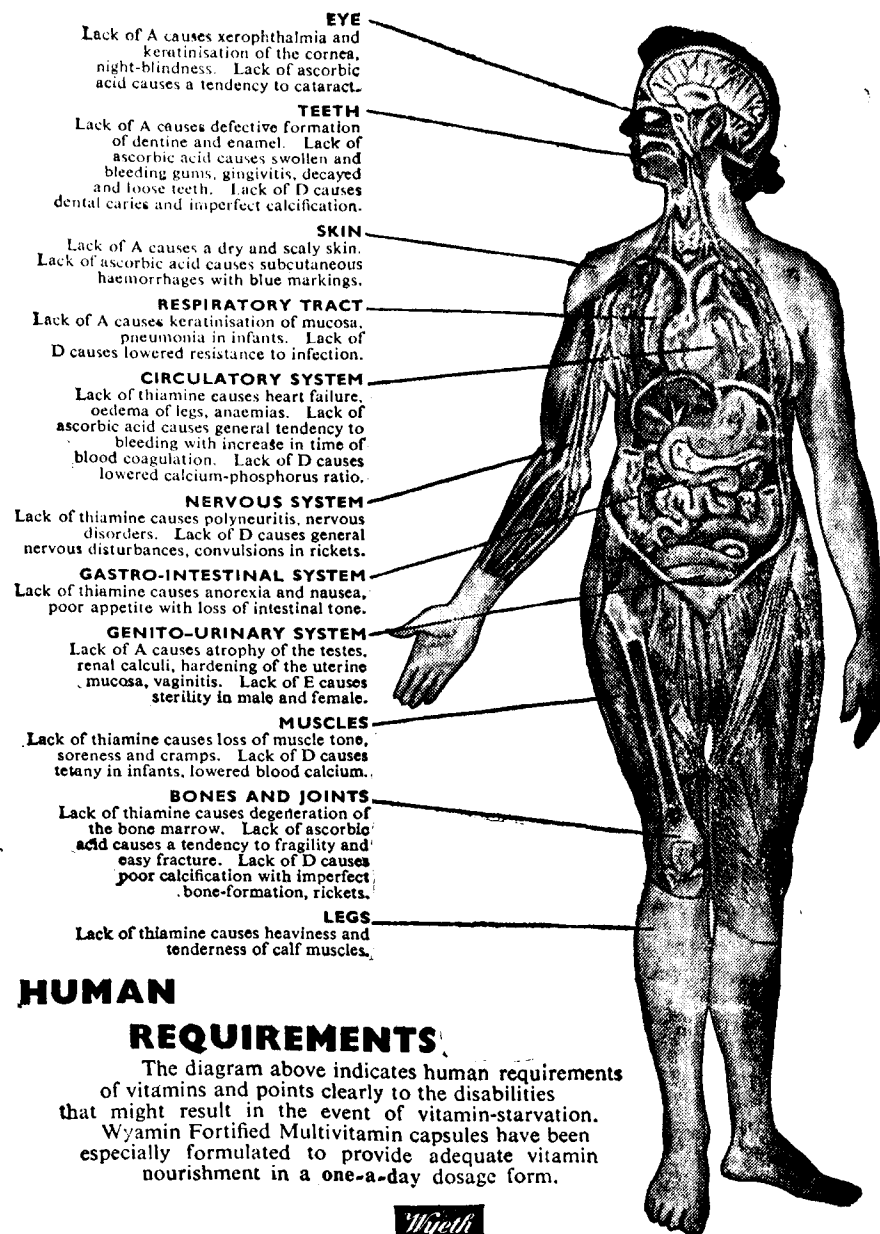
Safloxin provides the necessary calorie value, assures against loss of weight and has the beneficial effect of preventing or reducing high serum cholesterol level to ward against atherosclerosis.



PRODUCT OF *Cipla* BOMBAY-8.

AVAILABLE IN
BOTTLES OF 1 LB.

CIPLA SALES DEPOT: 1/186, Mount Road, MADRAS

**HUMAN****REQUIREMENTS**

The diagram above indicates human requirements of vitamins and points clearly to the disabilities that might result in the event of vitamin-starvation. Wyamin Fortified Multivitamin capsules have been especially formulated to provide adequate vitamin nourishment in a one-a-day dosage form.

Wyeth
WYAMIN* Fortified

Multi-vitamin Capsules
Bottles of 25, 50 and 300
Free sample on request

JOHN WYETH & BROTHER LIMITED, LONDON
(Incorporated in England with Limited Liability)
Steelcrete House, Dinshaw Wacha Road, Bombay 1.

* Trade Mark

First *once again!*

PREDNISOLONE ROUSSEL

for local application



SKIN OINTMENT

COLLYRIUM



NASAL DROPS

**3 to 4 times more potent than
Cortisone or Hydrocortisone!**

PRESENTATION

- ▶ Prednisolone Skin Ointment: 5 gm. tube of 0.5% ointment.
- ▶ Prednisolone Collyrium: 3 cc. plastic dropper vial of 0.5% suspension.
- ▶ Prednisolone Nasal Drops: 8 cc. plastic dropper vial of 0.5% suspension.

LES LABORATOIRES ROUSSEL
Laboratoires Français de Chimiothérapie
PARIS.

Particulars from:
M/s. FRANCO-INDIAN UNITED LABORATORIES,
Bapnu Ghar, Hornby Vellard, BOMBAY-18.



WANDER

Asmac

for the symptomatic treatment of
BRONCHIAL ASTHMA

Combines the sedative action of allobarbitone
on the nervous system with
the spasmolytic action of ephedrine and xanthine
derivatives

while extr. of ipecacuanha improves expectoration.

Tubes of 20 tablets.

Bottles of 100 and 500 tablets.

Dr. A. WANDER S.A., BERNE—Switzerland.

WANDER

WANDER

Sole Importers:

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BRANCHES AT: Patna, Delhi, Kanpur, Madurai, Madras,
Secunderabad (Dn.) and Bangalore City.

119

INTRODUCING
Shortly

5

INSULINS**Uni-Dura****Uni-Semi Dura****Uni-Extra Dura**

also

Crystalline &**Zinc Protamine**

- Insulins with sustained actions.
- No allergic reactions of protamine.
- Economical.



UNICHEM LABORATORIES
BOMBAY 26.



An easily digestible and palatable concentrated protein nutrient for all cases of protein imbalance such as in

- Fevers
- Gastro-intestinal disorders
- Pregnancy and lactation
- Convalescence after operations or debilitating illnesses.

Optimum palatability and preservation maintained indefinitely in sealed glass ampoules.

PACKS : 10 c.c. ampoules : Boxes of 6 and 50

SMITH STANISTREET & CO., LTD.

HEAD OFFICE, FACTORY & LABORATORIES
18, CONVENT ROAD, CALCUTTA-14.

PSST 38

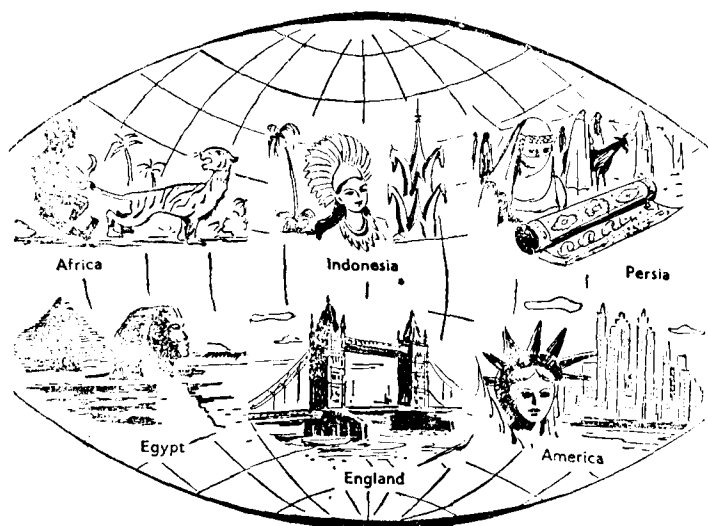
Easy for children to take **CALCIBRONAT**

SYRUP

**A new form of
an old favourite**



SANDOZ PRODUCTS PRIVATE LTD.



It is sold all over the world!

Africa, Indonesia, Persia, Egypt
even England and America.

In almost all the nations of both the Hemispheres,
Loma is sold and the demand is still increasing

STUDIO KADAM.



THE UNIVERSALLY
ACCLAIMED NATURAL
HAIR DARKENER

MPS

Sole Agents: M. M. KHAMBHATWALA, AHMEDABAD 1,
Agents: C. NAROTAM & CO. BOMBAY 2. Tel. 30575

suspect vaginal
moniliasis
when
you find:
1 odourless
vaginal
discharge
2 moderate
to severe
pruritus,
aggravated
before menses
3 dysuria
4 white,
thrush-like
patches
in the vagina

(A positive diagnosis, of course, depends
on results of mycologic culture)

prescribe
MYCOSTATIN
Squibb Nystatin vaginal tablets

therapy reported 98.3% effective*
does not disturb normal and useful bacteria
acceptable to your most fastidious patients

* Pace, H.R., and Schantz, S.I., J.A.M.A. 162:268, 1956.

Each tablet contains 100,000 units of the antifungal
antibiotic, nystatin, plus 0.95 Gm. of lactose. Supplied
in bottles of 15



SQUIBB

A century of experience builds faith

Mycostatin is a trademark

SARABHAI CHEMICALS BARODA
Karamchand Premchand Private Limited
MANUFACTURERS OF SQUIBB MEDICALS IN INDIA

better control for the majority of diabetics...

NPH Insulin, Lilly

Moderately long-acting

Carefully standardized

For Intermediate Effect: (affords best control for most patients) NPH Insulin, Lilly, U-40 and U-80

For Rapid Effect: Insulin, Lilly, U-40, and U-80. Insulin, Lilly, made from Zinc-Insulin Crystals, U-40 and U-80

For Prolonged Effect: Protamine Zinc Insulin, Lilly, 40 units and 80 units

.....in 10 cc. vials.

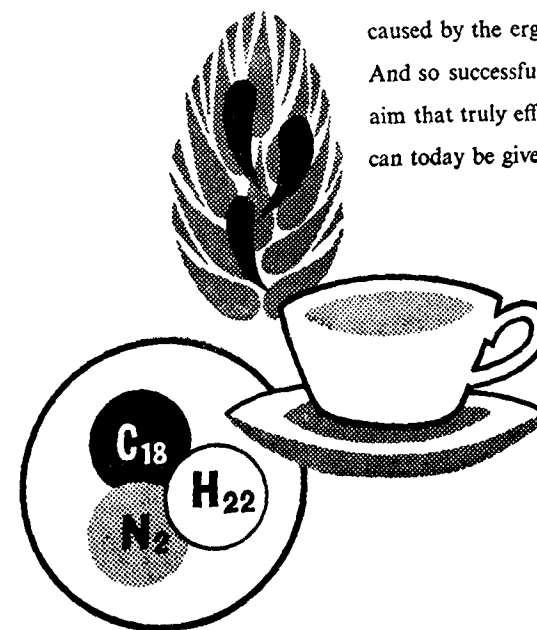
Lilly QUALITY - RESEARCH - INTEGRITY

ELI LILLY AND COMPANY OF INDIA, INC.

(Incorporated in the U.S.A., the liability of the members being limited.)

P. O. Box 1971, BOMBAY 1.

today's new MASTER PLAN against migraine



The prescribing of 'Migril' makes possible at last a planned attack upon the three predominant symptoms of migraine. Ergotamine is present at strength in 'Migril' for its specific effect upon the characteristic headache and ocular disturbances. Caffeine is present too, since it acts as a synergist to ergotamine. Frequently, however, ergotamine tends to evoke nausea and vomiting on its own account and can therefore worsen these aspects of the condition. For this reason, the potent, rapidly acting anti-emetic cyclizine ('Marzine') is also included in 'Migril'—to overcome any tendency to nausea or vomiting, whether caused by the ergotamine or by the migraine itself. And so successfully does cyclizine achieve this aim that truly effective oral doses of ergotamine can today be given—by means of 'Migril'.

Each tablet contains ergotamine tartrate 2 mg.; caffeine (alkaloid) 100 mg.; cyclizine hydrochloride 50 mg.

Packing

Tablets: 6 x 4 (catch covers)

'migril'
BRAND

TABLETS OF ERGOTAMINE COMPOUND

BURROUGHS WELLCOME & CO. (INDIA) PRIVATE LTD.

P. O. BOX 290, BOMBAY

USAN

Pioneers of

FOLIC ACID & VITAMIN B₁₂Combination in various uses from
PEDIATRICS to GERIATRICS

Available in the following forms :

Fol-B ₁₂	... Injection	—
Fol-B ₁₂	... Drops	... In a very pleasant and palatable Form.
Fol-B ₁₂	... Liquid	... In a very pleasant and palatable Form.
Fol-B ₁₂ & Iron	... Tablets	—
Fol-B ₁₂ & Vit. C	... Liquid (Oral)	In a very pleasant and palatable Form.

BASYDEX LIQUID

A multivitamin product with Calcium, Phosphorus and Glycero-phosphate in a palatable and nutritious malt base to check the state of malnutrition in CHILDREN, ADOLESCENTS and ADULTS in the most effective way.

PACKING : 1 lb. Jar.

STREMBIN

INJECTION

An ideal combination of Emetine, Strychnine and Vitamin B₁

IN THE TREATMENT OF

Intestinal amoebiasis, Amoebic Hepatitis and Amoebic Liver Abscesses

Each ml. contains :

Emetine hydrochloride B.P.	... 30 mg.
Strychnine hydrochloride B.P.	... 1 mg.
Vitamin B ₁ B.P.	... 10 mg.
Chlorocresol	... 0.2 %

For deep Intramuscular Injections only.

Available in boxes of 6, 25, & 50 amps of 1 ml. size.

Detailed particulars on request from :

USAN LABORATORIES PRIVATE LIMITED

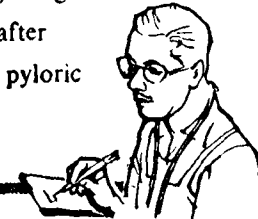
13, DATTATRAY ROAD, BOMBAY-23

3 Famous Products

—prescribed by the medical profession



Eledon The dependable acid buttermilk of constant composition which is ideal for feeding of premature and marasmic infants, for gastroenteric disorders, dysentery, convalescence after typhoid, dystrophy, skin disorders, pyloric stenosis and liver diseases.

**LACTOGEN**

A spray dried full cream milk modified so that on reconstitution with water it closely resembles human milk in percentage composition. Fortified by the addition of Vitamins A and D and organic iron, entirely free of pathogens and of excellent digestibility.

**NESTOMALT**

A complete food-drink.

Full cream milk with the nutritive extracts of malted wheat and barley and fortified by the addition of Vitamin B₁. Can be given to young, old and convalescents because it is easily digestible. Ideal during and after pregnancy.



Remember — NESTLÉ is good —

VERY good !

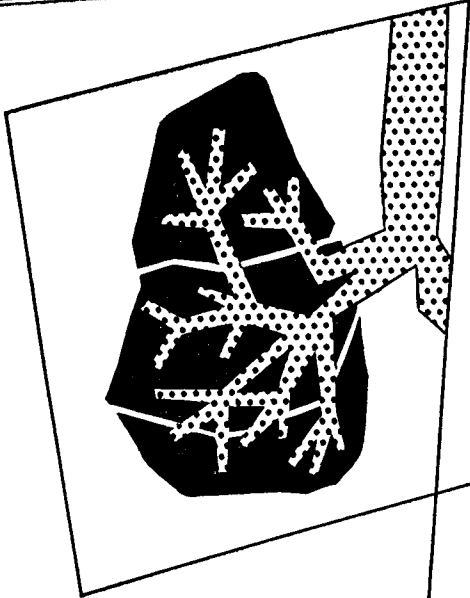
CROOKES

Lacto-Calamine

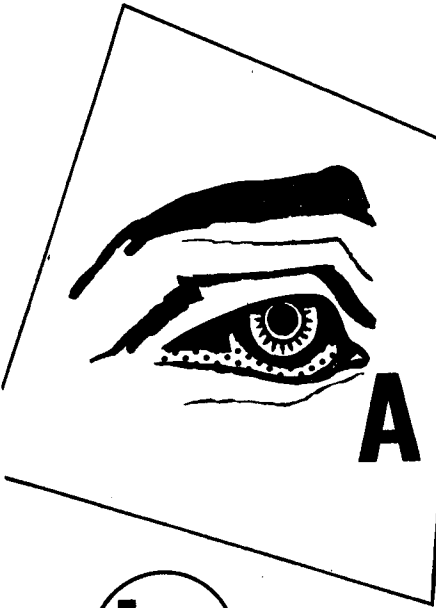
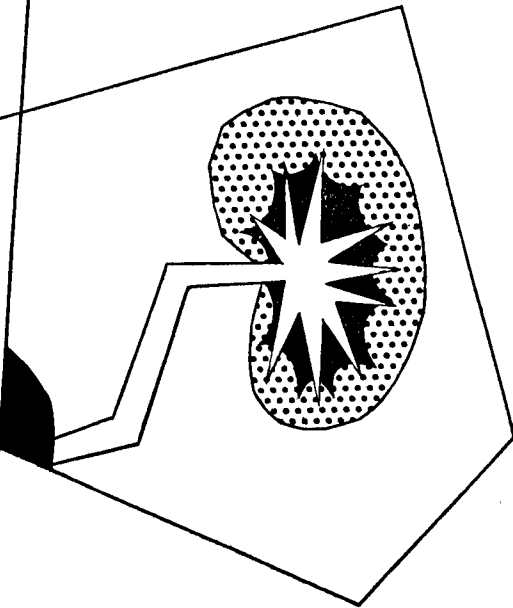
THE SUPERFINE CALAMINE
WHICH PROTECTS AND SOOTHES



THE CROOKES LABORATORIES LTD.
(Incorporated in England - The Liability
of Members is Limited)
Carnac Road - Bombay 2



for safer
sulphonamide
therapy

ARISTAMID[®]

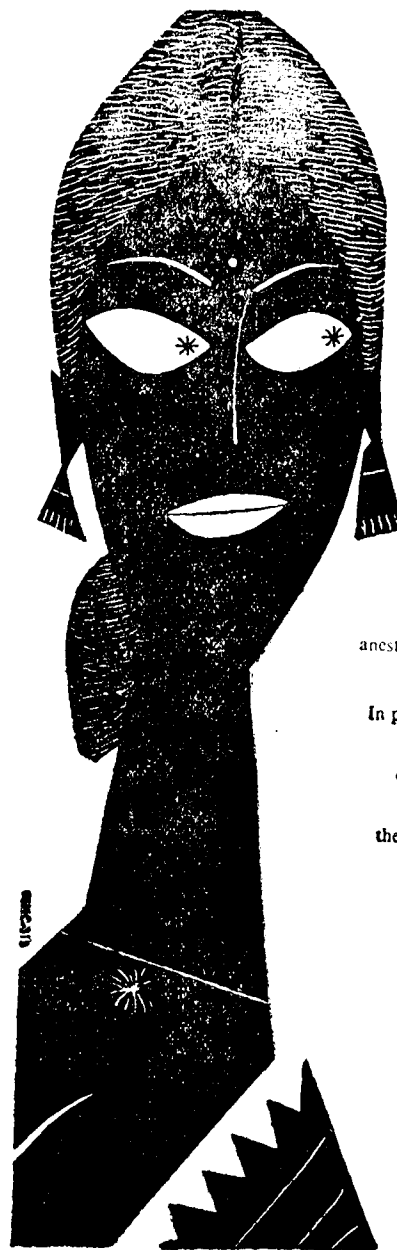
Sulphasomidine B.P.C.

**in respiratory,
urinary tract infections
and in ophthalmology**

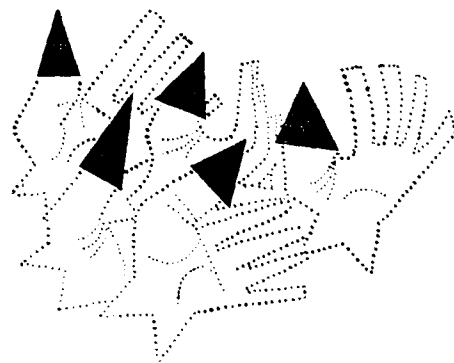


Tablets of 0.5 g.—Tube of 20, Tin of 500
Eye Drops 10%—10 ml.
Suspension 10%—100 ml.

GERMAN REMEDIES & TRADING CO., PRIVATE LTD., BALLARD ESTATE, BOMBAY 1



BLACK AND WHITE MAGIC



There is no magic about modern surgery. The means of inducing anesthesia are so highly developed and effective that the surgeon can coolly prosecute his work varying it to suit any exigency.

In processing aether anesthetic for the country's hospitals, surgical clinics and maternity homes, we are conscious of our grave responsibility. Strict and continuous laboratory and chemical control in our modern plant, ensures the high quality of our product. Always processed to BP standards.



ÆTHER

for anesthesia

Available in 1 lb. & 8 oz. Bottles.

Manufactured by
HYDERABAD CHEMICAL AND PHARMACEUTICAL WORKS LIMITED
HYDERABAD DN.
India's largest producer of Aether Anesthetics and Aether Solvents



Sole Distributors for India (except Assam, Bengal, Bihar & Orissa):
MESSRS. HERBERTSONS PRIVATE LTD. Bombay • Delhi

Sole Distributors for Assam, Bengal, Bihar and Orissa:
MESSRS. RAVI TRADING CO. 5, Chitra Row, Calcutta

Sub Distributors and Stockists in all important towns and cities of India

For the Prophylaxis & treatment of Multiple Vitamin Deficiencies

VIMIX

Liquid

Each 3.5 ml. (one teaspoonful
of the combined solution No. 1 and 2
supplies :

Vitamin A U.S.P.	...	6,000 I.U.
Vitamin D ₂ B.P.	...	1,500 I.U.
Vitamin B ₁ B.P.	...	6 mg.
Vitamin B ₂ B.P.	...	1.75 mg.
Vitamin B ₆ B.P.C.	...	0.6 mg.
Niacinamide B.P.	...	25 mg.
Panthenol	...	3 mg.
Vitamin B ₁₂	...	5 mcg.
Folic Acid B.P.	...	1 mg.
Vitamin C B.P.	...	60 mg.
Vitamin E B.P.	...	1 mg.

Injectables

Each ml. contains :

Vitamin A U.S.P.	..	5,000 I.U.
Vitamin D ₂ B.P.	...	1,500 I.U.
Vitamin B ₁ B.P.	...	5 mg.
Vitamin B ₂ B.P.	...	1 mg.
Vitamin B ₆ B.P.	...	1 mg.
Niacinamide B.P.	...	30 mg.
Panthenol	...	2 mg.
Vitamin C B.P.	...	30 mg.
Vitamin E B.P.	...	1 mg.
Benzyl Alcohol B.P.	...	2 %

*VIMIX injectable may be
advantageously used as a
solvent for Streptomycin in
place of Distilled water.*

Detailed literature on request from :

THERAPEUTIC PHARMACEUTICALS

Administrative Office :
43, Queen's Road,
BOMBAY-2

Biological & Pharmaceutical Laboratories :
54, Proctor Road, BOMBAY-7
&
38, Carter Road, BOMBAY-41

in pregnancy and after child birth

HEPATINA is a valuable tonic for antenatal and postnatal care

HEPATINA supplies Iron & other minerals with vitamins, liver & yeast.

It's appetising aroma and delicious taste, make it specially liked by pregnant & nursing mothers.

Supplied in 120 c.c. & 450 c.c. bottles.

HEPATINA

The Calcutta Chemical Co., Ltd. - CALCUTTA-29



Dolirin

gives fast, safe & definite relief in headaches, colds, fever, toothache, tonsillitis, and arthritic pain

Each tablet contains :		Approx. Eq.
Salicylamide	130 mg.	(2 gr.)
Acetyl Salicylic Acid	260 mg.	(4 gr.)
Acetophenetidin	195 mg.	(3 gr.)
Codeine Phosphate	10 mg.	(0.16 gr.)
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A CLINICAL STUDY OF DIABETES*

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THE object of this paper is to study 75 consecutive cases of diabetes. In arriving at the diagnosis of diabetes, it is always better to start with the clinical examination of the patient. It is easy to exclude conditions like hyperthyroidism, adrenal medullary tumours and Cushing's syndrome. Transient glycosuria is found accompanying infections, toxæmias, anæsthesia and asphyxia. Slight glycosuria is not infrequently encountered in hypertension, nephritis and nephrosis. Glycosuria due to chemical agents like phloridzin poisoning is of no practical importance in man. Lactosuria is not uncommon during advanced pregnancy and lactation pentosuria, galactosuria and fructosuria are very rare types of metabolic diseases.

Kohn (1957) had described a rapid method of estimating blood glucose ranges by using "Clinistix," an enzyme test strip. Blood, with stable chemical composition and pH offers more favourable conditions than the urine for estimation. In a series of 545 samples checked up with orthodox estimations, this test indicated fairly correctly the clinically important blood-sugar ranges but did not furnish exact figures. No colour change appears with less than 30 mg. per cent; and after 400 mg. per cent the changes of colour cannot be appreciated. The value of this ready bed-side test in general practice is really very great.

The diagnosis of renal glycosuria is to be restricted to those conditions in which the renal threshold is extremely low and

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sugar is present in all specimens of urine examined including those after an overnight fast. This is asymptomatic condition except that some patients complain of fatiguability and lassitude.

The diagnosis of potential diabetes is an unsatisfactory one, but a most convenient one, when blood sugar is below 130 mg. per cent on fasting, and never reaches 170 mg. per cent after a meal. These patients do well with a restricted diet. But as many as 17% of them are found to become diabetic in the course of a few years.

The so-called "Lagstore" curve in which the blood sugar at half-an-hour after food rises to 180 mg. per cent but returns to the fasting level within the usual time is usually regarded as a harmless anomaly.

Benedict's test for testing sugar in the urine is preferable and must be correctly performed. The urine should also be tested for ketone bodies by Rothera's Sodium nitro-prusside test and Gerhardt's Ferric chloride test. The Ferric chloride test is relatively insensitive and therefore, if both the tests are positive, ketosis of some severity is present.

Aspirin, Salicylates, Chloral hydrate and Ascorbic acid can reduce Benedict's; Aspirin, Salicylates, and Sodium amino salicylate can give rise to red or purple colour with Ferric chloride test. As ketone bodies are volatile, the test will become negative, if performed on boiled urine.

A definite reduction in an untreated patient with history of thirst, polyurea and loss of weight is for all practical purposes diagnostic of diabetes. If reduction is present, but symptoms are doubtful, it is better to do a single blood-sugar estimation, one and a half hours after a meal containing 80 g. of carbohydrate or a glucose-tolerance test. The diagnosis of diabetes in an individual with glycosuria can be done confidently if the fasting blood sugar is 130 mg. per cent or over and the post-prandial blood sugar is 170 mg. per cent or over. It must be remembered that with starvation when ketonurea is present, the blood-sugar curve becomes abnormal, but becomes normal after a week's full diet.

Number of cases.—In this series, 75 cases were studied. 54 of them were inpatients in the Medical Units of the Osmania Hospital in a three year period. 21 cases were from those who attended the metabolic clinic of the Osmania Hospital within the last three months.

Sex incidence:—64 were males and 11 females.

Age incidence:—

Table I. Showing the Age Incidence

	10-20	21-30	31-40	41-50	51-60	61-70
Males	5	12	18	13	11	5
Females	1	2	2	2	1	3

It will be seen from the above table, that in the males, the maximum incidence is between the age group 31-40; nearly 50% of cases occur between the age period of 31-50. But in the case of females the incidence is even, with no particular significant age-group incidence.

The usual symptoms.—The usual symptoms for which the patients seek treatment are general debility, polyurea and loss of weight. 20 patients were below 100 lbs. in weight.

Complications.—The following complications were met with in these cases.

Table II. Showing the Complications noted

1. Pulmonary tuberculosis	10 cases	5. Ulcer in anal region	1 case
2. Hypertension	4 "	6. Boils	1 "
3. Peripheral neuritis	5 "	7. Still-birth	1 "
4. Diabetic coma	6 "		

It is very significant that 10 cases had pulmonary tuberculosis. Any patient with diabetes must have his chest X-rayed on slightest suspicion. Hypertension is a disease of the same age-group. Nowadays if diabetes is perfectly controlled, the pulmonary tuberculosis responds to treatment as in a normal individual. Peripheral neuritis does not respond to vitamin "B" group. But every case responds to insulin therapy. The response will be slow as the nerves have to regenerate themselves. Septic complications like ulcer and boils respond well to insulin combined with antibiotics when required, but not to antibiotics alone. Still birth is rather common in a diabetic; but more common is an over-weight child.

Sometimes cranial nerve palsies can occur. Thus an old man of fifty years (not included in this series) was admitted five years back with three, four and sixth nerve paralysis of the left eye. With the control of diabetes he recovered in three months' time and was well when seen one year back.

Diabetes has an effect on the blood vessels and produces vascular degenerative processes. The important manifestation is intercapillary glomerulo-sclerosis and retinopathy (Kimmelstiel and Wilson). A lady, fifty years old (not included in this series) was admitted, about four years back with heavy albuminuria, severe hypertension, retinopathy and poor vision, and slight oedema of the face and legs. Trace of sugar was present and blood glucose tolerance test showed a diabetic curve of moderate severity. In these cases glycosuria becomes less as the renal disease advances and insulin requirements also all. This lady did not improve with the treatment.

Fatal cases.—The three fatal cases in this series are due to diabetic coma. Thus there is a fifty per cent mortality. The essential life-saving treatment must start as early as possible after the onset of coma. If the treatment is delayed the coma becomes irreversible due to its effect on the brain.

Community:—There were 29 Hindus, 2 Christians and 44 Muslims in this series. The preponderance of the Muslims is due to the fact, that that community seeks treatment in the hospitals frequently.

Occupation:—No stratum of society was immune to diabetes. The income varied from Rs. 0 to Rs. 300 per month. The following are the occupations:—

Table III. Showing the Occupation of the Patients

Beggars	...	2	Farmers	...	3
Clerks	...	11	Teachers	...	4
Ward-boys	...	2	Vet. doctor	...	1
Labourers	...	3	Pensioner	...	1
Policemen	...	2	Sub-Inspector	...	1
Student	...	1	Unemployed	...	22
Merchants	...	3	House-wives	...	11

It will be seen that as many as 22 were unemployed and so this is not a disease of the rich alone, as it is popularly believed.

Duration:—Twenty-four gave histories of less than 6 months' duration; 6 less than one year and the rest were of more than one year's duration. In one case the duration was of 20 years.

Blood-sugar:—If the blood glucose reaches 350 mg. it is of high grade type of diabetes; if it reaches 250 to 350 mg. it is a medium grade one, and if it is below 250 mg. it is a low grade one. There were 15 cases of high grade, 27 of medium, and 16 of low grade types. For the rest, glucose-tolerance test was not done.

Family history.—There were two brothers both having diabetes and one brother and a sister, both having diabetes. Recently a family was encountered with diabetes in three generations. Heredity has a significant bearing on the individual, developing disease, at least in many cases.

TREATMENT:—(1) *Dietetic*:—Low grade diabetes sometimes responds well to restricted diet. Recently a University teacher came with diabetes of low grade. Fasting blood-sugar was 112 mg. rising to 182 mg. after food and did not come back to normal within 3 hours. With diet control alone, the post-prandial blood-sugar was 142 mg. Four cases out of 16 were controlled with diet alone. Even for moderate or high grade types, restriction of diet is essential to restrict the dose of insulin per day.

(2) *D. 860 or Tolbutamide therapy*:—This is an oral hypoglycæmic sulphonamide, (Butyl toluene sulphanlyl carbamide) said to be safer than BZ 55, Carbutamide (N1 Sulphanlyl 2-n-Butyl Carbamide). An excellent review on these drugs appeared recently in a leading article in *J.I.M.A.* The exact mode of action of these drugs is not known. This drug was tried in 13 cases of diabetes. The dose schedule was 6 tablets

a day for 4 days, 4 tablets a day for the next four days, 3 tablets a day for the next one week and one tablet twice a day for another week or ten days. The patient is put on restricted diet and if the sugar in the urine increases after the stoppage of the drug, it can again be restarted in a low dosage of 2 to 3 tablets a day. 9 cases showed fair control. There were no side effects.

Here are two cases that responded well to Tolbutamide:

CASE 1:—Male, 40 years. Loss of weight and weakness, 2 months. Urine—2% sugar. Blood-sugar—fasting—247 mg.% rising to 400 mg. 1 hour after glucose. At the end of 2½ hours blood-sugar is at 266 mg.%; started on Tolbutamide tablets. On the 7th day of treatment fasting blood-sugar was 125 mg. per cent raising to 210 mg. per cent, one hour after glucose 148 mg. per cent, 3 hours after glucose. 15 days after starting the treatment fasting blood-sugar 114 mg. per cent rising to 166 mg. 2 hours after glucose. The polyurea came down, weight had increased by 2 lbs. and he felt better. This patient responded well though he had high grade type of diabetes.

CASE 2:—A. A., 42 years, polyurea, polydipsia, 1 year's duration. Fasting blood-sugar 181 mg.%. Started on Tolbutamide tablets. 4 days after treatment fasting blood-sugar 164 mg.%; 20 days after 142 mg.%. He was feeling well. Tablets were stopped for a week. Symptoms reappeared. Started on 1 tablet b.d. 5 days later fasting blood-sugar was 112 mg. per cent and patient felt well.

The following is a case that did not respond to Tolbutamide:

A. B., Female, 45 years; was transferred from Sarojini Devi Hospital for control of diabetes preparatory to cataract operation. Polyurea, polydipsia and peripheral neuritis since one year. Urine, sugar—2%. Fasting blood-sugar 125 mg. per cent rising to 192 mg. per cent 2 hours after glucose, remaining at 160 mg. at the end of three hours. Started on Tolbutamide tablets; 4th day after starting tablets, blood glucose, 2 hours after lunch 200 mg. per cent; 14 days later it was 250 mg. per cent. All these days she was on restricted diet. Though a low grade diabetic, she did not respond to the tablets. She was then started on insulin, and her diabetes was controlled with 35 units twice a day.

The blood-sugar curve is no indication whether the patient will respond to Tolbutamide or not; nor the age. A trial has to be given before one can decide whether this drug acts or not. It is obviously not suitable for acute cases with surgical complications etc. It is hoped that this drug will be a fore-runner for better drugs to be introduced in the near future.

Insulin therapy.—The important point to remember is, that there is no dose for insulin and enough must be given to control diabetes.

The usual diets copied from English text books are of no value to the Indian patient. The diet must be one which he can continue at home. So it is always better to build up a diet by eliminating sugar, restricting carbohydrate and using the same articles of food which the patient uses everyday.

The sensitivity to insulin varies from patient to patient and in the same patient from time to time. So the dose has to be worked out for every case and to be checked up from time to time. Soluble insulin must be used for all acute cases with surgical complications and for all cases of coma. Lente insulin was found to be very satisfactory to control diabetes by one injection a day.

Usually the renal threshold is raised in cases of diabetes; but occasionally diabetes can occur with a low renal threshold. With insulin therapy the high threshold comes down to normal limits and sugar might temporarily increase in the urine. With low renal threshold the sugar must be allowed to leak in the urine when treated with insulin. Otherwise there is a real danger of giving too much of insulin and producing hypoglycæmia.

Juvenile diabetes.—There were 6 cases in the age-group 10 to 20 years. All did well on adequate dosage of insulin. Many of these patients are poor and are unable to continue insulin at home. Children below 10 years are not admitted into the General medical wards, but are referred to pædiatrician.

Summary.—75 consecutive cases of diabetes are analysed and presented. Out of these, 54 were inpatients admitted into the Medical Units of the Osmania Hospital during a period of 3 years and 21 cases were outpatients who attended the Metabolic Clinic in a period of nearly 3 months. (2) Out of the 75 cases, 64 were males with the maximum incidence in the age-group of 31–40. 11 were females with no particular significant age-group incidence. (3) Six came with diabetic coma—3 of them proved fatal. These were the only fatal cases in the series. (4) The other common complications were pulmonary tuberculosis 10; hypertension 4; peripheral neuritis 6. (5) The economic strata of the patients varied very widely. Many of them were of a lower income group, 22 were unemployed. (6) 15 patients showed high glucose tolerance curve, 27 medium and 16 low curve. (7) Diet control alone brought down the hyperglycæmia in 3 cases with low curve. (8) Restinon (D860) was tried in 13 cases, fair control was obtained in 9 cases. There were no side effects. (9) In this series two brothers, one brother and his sister had diabetes. (10) There were six cases of juvenile diabetes in the age group 10 to 20 who did well with Insulin.

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RECENT ADVANCES IN THE PATHOGENESIS AND MANAGEMENT OF PEPTIC ULCER*

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THE pathogenesis of peptic ulcer has been a subject of intense research for the last 25 years and yet it cannot be said that the cause of gastric ulcer has been found. The traditional theories have come in for very critical examination and many have been discarded. The infective theory of Rosenow and the toxic theory of Boulton have been completely abandoned. The theories concerned with secretion of gastric juice and the motility of the stomach are being interpreted. Vascular theories are still not completely abandoned. Nervous hormonal and psychic factors are more and more being stressed. Much confusion has arisen from consideration of gastric and duodenal ulcer as separate entities. There is increasing evidence that gastric and duodenal ulcers behave differently in many respects and may have different ætiological factors. This is a revolutionary idea and calls for a revision of our ideas of the ætiology of gastric and duodenal ulcers. The cause of peptic ulcer is not known but one thing is agreed that ulcer results as the result of digestion of a devitalized portion of the gastric mucosa by the acid and pepsin of the gastric juice. This is evident from the fact that ulcers do not occur in stomachs which do not secrete any gastric juice. Two things are concerned in the production of peptic ulcers, the secretion of acid and pepsin, and mucosal resistance. Acid and pepsin are necessary for ulcer formation. They may be the necessary though not the efficient cause.

Taking first the gastric secretion: It is now believed that the primary secretion of acid by the parietal cells occurs at a fixed concentration of 160 m.m. strength, and that there is in addition a diluting non-parietal secretion. It is the mixture of these two which produces the secondary acidity as measured in aspirated gastric juice. Hyperacidity, in so far as it implies a higher primary acidity to be found in ulcer subjects or a higher secondary acidity using a histamine stimulation, has no basis in experimental fact. Parietal cell secretion may be identical in composition in normal subjects and those with ulcers and the stomach may be capable of producing larger acid outputs than normal, particularly in the case of duodenal ulcer subjects. The output of acid from patients with duodenal ulcers is higher than normal, whereas that from stomachs with gastric ulcers is normal or lower than normal. According to Magnus and Rodgers (1948) the number of parietal cells is high in duodenal ulcers and diminished in gastric ulcers. Thus duodenal ulcers exist in stomachs with a large secretory cell mass. Achlorhydria and

* Specially contributed to the *ANTISEPTIC*.

atrophic changes go together and increased acid output and hypertrophic 'cobble stone' appearance tend to be found together. Whether the high cell mass is primary or it is secondary to the presence of a chronic duodenal ulcer is not known. Such a self-perpetuating mechanism would explain one of the vicious circles of the ulcer disease.

Interdigestive phase.—Gastric secretion normally tends to die down after the food leaves the stomach. But in stomachs with chronic duodenal ulcer, secretion may continue at an astonishing rate throughout the night. Secretion is normally buffered by the food which provokes the response. The interdigestive phase of secretion, when the juice remains unbuffered, may be the all-important and dangerous phase and if it does not initiate an ulcer might prevent the healing of it. The stimulus which produces this secretion seems to be nervous and hormonal. Part of the secretion may be hormonal in origin, but the major portion is nervous. Whence comes the stimulus? Is it psychosomatic?

Neurogenic and psychosomatic theories.—It has been argued that certain mental states associated with stress might produce an abnormal autonomic discharge with continued secretion and this acting on an empty stomach might produce ulceration. Wolf and Wolf (1943) have noted 2 types of reactions in emotional states. (1) A depression of acid output, motor activity and vascularity; (2) an acceleration of these functions. The first was associated with a reaction of withdrawal from a stressful situation and the second with repressed aggression. An emotional situation can profoundly alter gastric functions. It is well known that emotional states can readily affect the colon, *e.g.*, irritable colon, and nervous diarrhoea, but these conditions do not lead to organic changes such as ulcerative colitis; nor does a persistent effort syndrome lead to organic heart disease. There is no definite proof of the existence of an ulcer personality.

Mucosal resistance.—The part played by the mucosal resistance is not sufficiently stressed. Mucus is one of the major protective factors in the stomach. The exact chemical nature of mucus and the stimuli to its secretion are not known. The physical properties of mucus is important. Wolf and Wolf (1943) found mucus was immediately secreted following any physical or chemical injury and that with strong HCl it was precipitated into an insoluble and very adherent layer. On an area of the mucosa in which the secretion was defective a typical peptic ulcer was produced in 4 days by the continuous action of the gastric juice. If mucus plays a prominent part in the protection of the mucosa, the existence of mucolytic enzymes assumes importance. Mucolytic enzymes have been found in various

secretions of the body including the stomach and the duodenum. Their status is undetermined. Such agents might play a role in the ætiology of ulcer. It seems unlikely that nutrition plays an important part in the ætiology of ulcer. Somervell (1936) is convinced that it plays an important part in production of ulcers in India. Protein deficiency and Vitamin A and C deficiencies are implicated.

Vascular theories.—Wangenstein (1945) thought that fat embolism in the end arteries of the stomach might play some part in the production of ulcers, based on the observation that hæmatemesis sometimes follows fractures of the femur and this is supposed to be produced by fat embolism. Thrombosis may occur in the end arteries of the stomach in persons suffering from arteriosclerosis. Barclay and Bentley (1949) claim to have demonstrated the existence of an arterio-venous shunt in submucosa, which when open, might produce relative ischæmia of the overlying mucosa. They thought that the shunt was under the control of the sympathetic nerves. If this shunt operates during life and produces localized areas of ischæmia conditions would exist for peptic ulceration. *Hormonal: Urogastrone* Sandweiss (1939, 1945), based on the rarity of ulcers in pregnant women, attributed this rarity to the protective action and Urogastrone which is present in the urine of pregnant women. *Enterogastrone*, is an extract of the upper portion of the small intestines. This extract prevents the occurrence of ulceration as long as it is taken, but it also produces prolonged immunity against ulcers after it is discontinued. Both these lines of work which seek to investigate and isolate humoral factors affecting gastric function and which protect the mucosa against ulceration are of profound importance.

It seems likely that in addition to environmental factors, constitutional differences may help in determining which particular individual will succumb to an environmental stress. An interesting correlation has been drawn by Aird and his colleagues (1954) who have shown that blood group O is apparently more common with gastric and duodenal ulcer. An individual with blood group O has a 35 per cent greater risk of developing ulcer than those with other blood groups. Blood group substances are present in the stomach and there is a possibility that there is some correlation with mucus defence mechanism. The evidence is increasing that this difference in blood group distribution is related particularly to duodenal ulcer. Aird suggests that all blood group mucopolysaccharides may provide some protection against peptic ulcer, but A and B protect more effectively than O.

It is now realized that whilst gastric ulcer may be a disease due in part to dietetic and environmental factors, such as poor nutrition, bad dentition, infection and the like, duodenal ulcer

is more a constitutional disorder associated largely with psychological factors such as anxiety, frustration and suppressed resentment, *i.e.*, a disease more of emotional origin, related to conditions of strain and worry, than a disease of dietary deficiencies or excesses.

TREATMENT:—Diet, rest and freedom from worry and following a regimen of life is still the main basis of treatment. There is a tendency not to impose a too strict and monotonous diet. The diet prescribed now is more free and full. Any diet which the patient can take without discomfort can be allowed. Hunger should be avoided. Meals should be taken regularly and at frequent intervals. Antacids, aluminium hydroxide, magnesium trisilicate, by themselves re-mixed, are often prescribed. Complete neutralization is not aimed at. An antacid is to be taken immediately any discomfort is felt and not after pain becomes severe. The treatment at the first occasion should be thorough as it prevents recurrences.

Anticholinergic drugs.—Atropine acts peripherally at post-ganglionic nerve endings. Inhibits gastric motility but action on secretion is variable. *Banthine* acts on post-ganglionic nerve endings. Effective inhibitor of propulsive motility in clinical dosage but effect on gastric secretion is slight or inconsistent. Relieves pain promptly but has unpleasant side-effects, like dryness of the mouth and dysuria.

Enterogastrone and urogastrone.—Extract of upper intestinal mucosa contains a substance which is capable of inhibiting gastric secretion and motility under certain conditions. Similar effects can also be produced by intravenous injections of certain extracts from urine either human or animal, pregnant or not (urogastrone). Enterogastrone clinically has not shown any consistent benefit. Patients treated with this drug continue to suffer from recurrences. *Kutrol* is an extract from the urine of pregnant mares. Effect is attributed to stimulation of fibroblastic proliferation and epithelialization of the mucosa. Yields rapid symptomatic relief in patients with active ulcer. Urogastrone and Robudin have not yet been demonstrated to have any real clinical value.

ACTH and Cortisone have a destructive effect on patients with ulceration of the upper gastrointestinal tract. Prevention of recurrences. No medical treatment has any prophylactic effect on recurrences. Rigid ulcer regimen is only of benefit during the healing stage of the ulcer. Surgical treatment—Indications.

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HAEMORRHAGIC COMPLICATIONS OF LABOUR AND THEIR MANAGEMENT *

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HAEMORRHAGE before, during and after labour may be from varieties of causes and it is not possible to discuss all of them within this limited scope. Only important amongst them are being discussed here with special stress on some aspects of their management.

Hæmorrhage claims major half of all maternal deaths and energetic measures for prevention and management of hæmorrhage in any institution are bound to lower the maternal deaths in the institution to a great extent. Whatever be the cause of hæmorrhage, some general measures must be taken in all of them aimed at replacing the fluid lost and combating shock. Transfusion of blood is the best method of administering fluid. Liberal use of blood in obstetrical emergencies in modern times has greatly reduced maternal mortality, in fact every ideal institution where maternity cases are conducted should have the service of a blood bank. In the absence of any organized blood bank, labour rooms should be equipped with two bottles of Rh. negative 'O' type of blood. In the absence of blood, the next suitable material for replacing fluid is Plasma or Polyvirin preparation. If that too is not available, normal saline with glucose solution (5%) should be transfused by drip method in adequate quantities. If hæmorrhage is profuse, fluid should be administered under pressure for quick replacement. Foot end should be raised and warmth applied for preventing shock.

While adopting these general measures, steps should simultaneously be taken to remove the cause of bleeding and thus prevent further blood loss. In ante-partum hæmorrhage:—abruptio placenta, placenta prævia and marginal sinus bleeding should clearly be distinguished from each other and management will differ in the different conditions. In abruptio placenta, every patient should be examined for clotting test of blood. Presence of clotting defect is of great prognostic value both from the foetal and maternal point of view. At the site of placental separation an enzyme called fibrinolysin is produced which destroys the fibrinogen content of blood, giving rise to clotting defect. Unless a sufficient amount of whole blood is available in these cases or sufficient fibrinogen is injected intravenously, there is very little chance of survival of the mother and the baby. Besides clotting defect, the endothelial lining of capillary system becomes damaged in some cases giving no scope for treatment. The following case report will be of some interest as it clearly shows that at least in some of the cases of

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complete abruptio placenta, there is some toxin in circulation which damages the endothelial lining of the capillary system:—

One Mrs. A., of village Lataguri in the district of Jalpai-guri was admitted to Maynaguri Thana Health Centre with the history that she was in full term pregnancy, and was engaged in the kitchen that evening when suddenly she got agonising pain in the abdomen. She was immediately rushed to the hospital. On admission, she was restless and tossing over the bed from pain over the abdomen. Air hunger was present, pulse was of hæmorrhagic type, abdomen tense and tender, foetal heart sound—not audible and foetal parts could not be palpated. No vaginal bleeding was present. She was diagnosed as a case of concealed accidental hæmorrhage. About ten minutes after admission, bleeding from the nose started which was quickly followed by three or four bouts of severe hæmatemesis. Within about another fifteen minutes there was profuse hæmorrhage per rectum and few petechial subcutaneous hæmorrhages and wheals like urticarial rashes were found on the body, indicating capillary damage. Last of all vaginal bleeding appeared resulting in death within about 1 hour and 15 minutes of admission. Practically nothing could be done for the patient except Plasmosan by intravenous drip method, Vitamin K and coagulen injections as neither whole blood nor fibrinogen was available. There was really doubt whether whole blood or fibrinogen could do anything at all in this case as there was widespread damage of capillary walls causing cutaneous wheals, petechial hæmorrhages and bleeding from all mucus surfaces. It is well known that the starting of retro-placental hæmorrhage in abruptio placenta is by vascular degeneration probably due to toxins circulating in the blood. This vascular degeneration is noticed in different organs and other parts of the body but the mechanism of capillary damage in some cases as noted here is not yet fully understood. Management of these cases is a great uphill task and is often likely to end in failure. Even after confinement bleeding may continue in patient's of abruptio placenta due to atony of uterus or clotting defect. If due to atony, oxytocic drugs like pitocin, ergometrin etc., will help. If they fail hysterectomy may be considered as a last step. It is a sanguinous operation with considerable risk. In cases of abruptio placenta having postpartum hæmorrhage due to clotting defect, hysterectomy should not be done for the risk of additional hæmorrhage from the site of operation. Treatment should be aimed at correcting the clotting defect rather than performing hysterectomy.

In all cases of ante-partum hæmorrhage, vaginal plugging has got a place of consideration in our country where equipped hospitals capable of dealing with them are few and far between,

though this has been condemned by obstetricians for reasons of sepsis and shock. Medical practitioners in outlying areas are forced to send these cases to distant urban hospitals and many of them die during transit or after reaching the hospital due to blood loss. Even many of these so-called well-equipped hospitals have no arrangement for blood transfusion. In such cases vaginal plugging has got a definite place. Sepsis is not a very difficult problem in the present age of antibiotics particularly if care is taken to plug aseptically, and shock can be considerably minimized by plugging under anæsthesia and injecting a pint of gluco-saline before shifting the patient to hospital. Plugging if properly done, coupled with the application of a tight abdominal binder, besides arresting further bleeding, helps in dilatation of the cervix, thus facilitating vaginal manipulation for prompt induction of labour. In places where facilities for prompt hospitalization are present vaginal plugging has no place in the treatment, but in outlying areas where such facilities are absent it may be considered as a first-hand measure till the patient is removed to a hospital and I believe it has still got its use in rural areas.

Cæsarean section is a very important step in the management of ante-partum hæmorrhages and a liberal undertaking of this operation can save many lives. Lower uterine operation is the treatment of choice and it is not at all a difficult operation to be undertaken in mofussil hospitals where arrangements of sterilization are present. It is an emergency operation and should be boldly taken up more and more in mofussil hospitals. It is life-saving in central placenta prævia and some cases of accidental hæmorrhage. More conservative methods like version and bringing down a leg and putting traction by it, application of traction through Willets' forceps, application of forceps etc. are adopted in other types of placenta prævia and accidental hæmorrhage but cæsarean section is sometimes found essential in some of these cases too and no words can be strong enough for advocating undertaking of this operation in all hospitals having facilities for sterilization.

In cases of marginal sinus bleeding diagnosis is important for adopting the correct procedure in treatment. Diagnosis is established by the presence of fresh, intermittent, painless bleeding and absence of placenta in or near the internal os when examined *per vaginum*. 'Wait and see' policy is the best in these cases. Cæsarean section may rarely be necessary where the cervix is rigid preventing dilatation and where bleeding is profuse; otherwise normal delivery usually is the rule.

Post-partum hæmorrhage may occur from a variety of causes; the commonest are: retained bits of placenta, retained or adherent placenta, uterine atony and injury to the genital tract. Most

of the cases of post-partum hæmorrhage are preventable and the largest single cause of maternal death is post-partum hæmorrhage. Intravenous administration of ergometrine at the time of crowning definitely diminishes the quantity of post-partum hæmorrhage and is now being widely accepted as a useful step in the prevention of this. The application of forceps without anæsthesia and before full dilation of cervix predispose to injury of cervix and injury to vagina and perineum. Anæsthesia during instrumental delivery not only relieves pain and prevents shock but also prevents injury to birth canal causing muscular relaxation. Some form of anæsthesia should be given to primiparæ with rigid perineum and episiotomy should be freely done wherever there is a chance of perineal tear. General anæsthesia if too deep predisposes to post-partum hæmorrhage inhibiting uterine contraction. Pudendal block and some sort of regional anæsthesia are now liked most by the obstetricians. Multiparous women with pendulous abdomen, hydramnios, twin pregnancy, cases of primary uterine inertia and fibroid uterus etc. are more usually victims to post-partum hæmorrhage and prophylactic administration of intravenous ergometrine should as a rule be resorted to in these cases if not in all cases of normal labour. The commonest cause of post-partum hæmorrhage is retention of bits of after-birth inside the uterus. Some obstetricians advocate compulsory exploration of uterus in all cases after removal of placenta to avoid the risk of retention of some bits and consequent hæmorrhage. In all cases of post-partum hæmorrhage the uterine cavity should be explored for retained bits of placenta before much blood is lost. Exploration besides detecting retained placental bits, help in the detection of severe traumatic lesions like rupture of the uterus, tear of the cervix etc. Any delay in detection of these traumatic lesions may end fatally. If nothing is retained inside, oxytocic drugs usually suffice to control the bleeding and restoring tone of the uterine musculature; 0.2 gm. of methergin is given intravenously slowly. If this fails pitocin $\frac{1}{2}$ cc. in 500 cc. of normal saline is given intravenously by the drip method till uterus contracts and bleeding stops. If these fail, bimanual compression should be done in expectation of return of normal tone of the uterus. If all these measures fail, hysterectomy is to be done as a last step but this is seldom required. I am citing here an interesting case report which was not a hæmorrhagic complication itself but was a case of obstructed labour, endangering life during the intra-partum period due to hæmorrhage.

A patient aged about 26 was admitted to the hospital with the history that she started labour pains about 12 hours before admission with rupture of membranes and drainage of liquor amnii, subsequently, labour pain proceeded normally but about 5 hours before admission to the hospital, the placenta came out

instead of the foetus. There were a few gushes of blood at the time of delivery of the placenta and later on bleeding was not an important factor until about one hour before admission. The foetus at this time of admission was still inside and the placenta was hanging by the cord from inside. Blood was continuously dribbling out and the patient was much exsanguinated. Immediately the patient was put on the table, intravenous transfusion of plasmosan started by the drip method; a vaginal examination revealed an unusually large head of the size of No. 4 football floating in the abdominal cavity above the pelvic brim. Quickly perforation was done by introducing the perforator high up, well-guarded by hand and assisted by an abdominal hand. A large amount of fluid from the hydrocephalic head escaped and the collapsed head was easily pulled out by Willets' forceps. Recovery was uneventful. This was not a case of hæmorrhage primarily, but one of obstructed labour; it was a peculiar case the cause of bleeding bring the inability of the uterus to contract, due to retention of foetus after delivery of the placenta, just the reverse of what happens in post-partum hæmorrhage due to retention of placenta.

ICHTHYOSIS CONGENITA GRAVIS TREATED WITH CORTISONE

Ichthyosis congenita gravis (i. foetalis) is a rare disease of unknown ætiology often occurring in children of consanguinous marriages and may thus be inherited as a recessive, although proof of this is lacking. The disease is characterized by horny desquamations with deep cracks, ectropion of the upper and lower lids, marked cornification of the lips, trunk-like immobile mouth, malformation of the pinnae, and fixation of the limbs in flexion. Three cases of the disease are reported in the same family: 2 of them died, at 12 days and 6 weeks respectively. In the fourth child born on 2-6-1956 cortisone treatment proved successful. 25 mg. of cortisone were given daily for the first 3 weeks of life. After this the child received 18.25 mg. of cortisone daily. During the first 5 days of life 120,000 units of Vitamin A were given daily by mouth. Cortisone treatment was discontinued at 6 months and the child, 11 months old was cured; re-examined on 30-11-'57, at the age of 16 months, the skin was normal and required no treatment. The boy was normal in all respects; he walked well and was beginning to speak. He is without any significant sequelæ one year after cortisone was discontinued.—(*German Med. Monthly*, February 1958).

BREVITY IN WRITING

Brevity, like economy has great merits. Avoid long words like *possesses*, *termination* or *employed*, when shorter words like 'has,' 'end' or 'used' will do well or even better. Make your sentences short; if you arrange your thoughts to follow each other logically, your sentences will be short and hang together clearly..... Success in writing a clear, truthful and concise account of anything depends more on your ability and patience to rewrite, condense, revise, and tenaciously edit your own stuff—from the first to the fourth draft—than on what appears in your first draft. Remember to choose your nouns and verbs carefully. Use superlatives while stating results, *very sparingly* and wisely.—(*Dr. Alan. Gregg, M.D. of the Rockefeller Foundation, 1953*).

for diarrhoea; (c) ignorance. (ii) Anxiety state was present in 60% of cases; indeterminate 10%

The patients were treated with gradual high caloric feeding in spite of irregular bowels and their response was uniformly good.

Liver Extract, B Complex, Folic acid, and Amino-acids were tried in a group of 12 cases the response in these cases was poor as compared to those treated with a high protein and vitaminized diet and the injections were soon given up as a routine method of treatment.

Anxiety neurosis.—Cases responded fairly well to sedatives and tranquilizers, especially the serpina group of drugs gave a very good result in cases of chronic diarrhoea and colitis.

Summary.—1. 42% of hospital visiting population gave a past history of dysentery while 32% did not suffer from any ill effects and the stool examination showed nothing abnormal.

2. 180 cases of chronic diarrhoea were studied out of which one of the standard aetiological causes was found in 88.

3. In 72 out of 80 cases an important basic factor was determined which was responsible for perpetuation of the diarrhoea:—Inadequate, improper diet in 24 cases or 30%; anxiety state in 48 cases or 60%; and indeterminate in 8 cases or 10%.

Acknowledgement.—Thanks are due to my house officers for help and co-operation especially to:—(1) Dr. Miss Dodiya; (2) Dr. B. N. Tandon; (3) Dr. M. L. Gupta. My thanks are due also to Prof. B. B. Bhatia, M.D., F.R.C.F. (Lond.) for permission to publish this paper.

CHRONIC PANCREATITIS WITHOUT PAIN

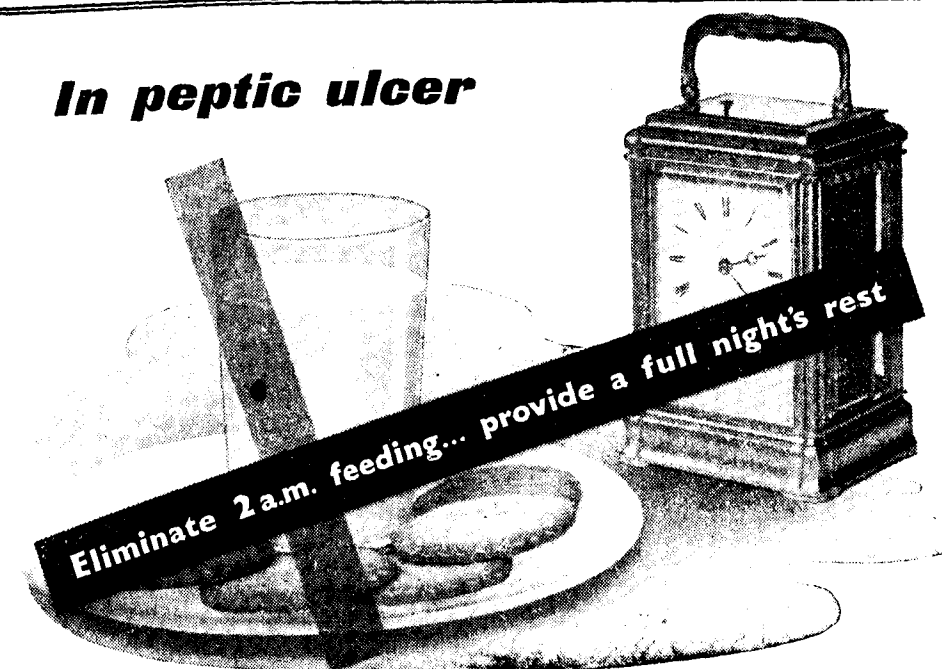
Although chronic pancreatitis typically is a painful disease, Bartholomew and Comfort have reported ten cases of chronic pancreatitis in which the disease progressed without pain to extensive parenchymal degeneration. In these cases the diagnosis depended upon correct interpretation of the various sequelae that result from the destruction of the pancreas.

In each of the 10 cases, the outstanding clinical feature was steatorrhoea. Loss of weight occurred in spite of a ravenous appetite. Clinical improvement was uniformly obtained with medical treatment. This consisted of the usual methods for the management of diabetes mellitus when that condition existed, and provision of a low fat diet supplemented with pancreatin.—(Proc. Staff Meeting, Mayo Clin., 32 : 361, 1957, via G.P.).

PAPILLOMA OF BLADDER ON THE INCREASE

A preliminary report on an inquiry among patients with bladder papilloma in Copenhagen, where the rates of incidence for this disease is on the increase, is given in the *Danish Medical Bulletin*, 5 : 3, March 1958. Clemmeson *et al* interviewed 369 patients, and found a larger proportion of smokers, and of heavy pure smokers of cigarettes and cigars than the normal population. They suggest that it may reduce the risk of recurrences and of malignancy, if patients with bladder papilloma abstain from smoking.

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CLINICAL TRIAL WITH PARENTERAL DIETHYL CARBAMAZINE CITRATE IN TROPICAL EOSINOPHILIA*

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Introduction.—Tropical eosinophilia is fairly common in our country, and especially along the sea-shore areas. It is common in Bombay. Sir William Osler (1895) first pointed out pulmonary involvement in allergic disease. The disease generally resembles asthma or pulmonary tuberculosis. Hence all cases of pulmonary tuberculosis diagnosed radiologically, must have a blood examination done for total and differential counts, before anti-tuberculosis treatment is started. Frimodt-Moller and Barton (1940) described a number of cases, seen during 15 years in Madanapelle Sanatorium and thought that the condition was a benign allergic one. Weingarten (1943) without reference to these authors observed 81 cases and his opinion was that this condition was not allergic and that environment was the aetiological factor.

Though the disease described by the above authors was seen in India, it was not unknown in other countries. Loeffler (1932) in Switzerland described hyper-eosinophilia and cough with pulmonary infiltration. Bass (1931) in U.S.A. reported high eosinophilia and bronchitis. Roy and Bose (1918) were the first in India to describe cases of asthma, which showed a high leucocytic count and eosinophilia. They treated and cured their patients with Soamin.

Clinically the onset is insidious. The symptoms are dry cough, persistent or recurrent with or without asthma, more troublesome at night, also often low fever, pain in chest, tachycardia, hæmoptysis or sinus troubles. The patient may be symptom-free, and the disease discovered accidentally. The liver may be enlarged. Non-pulmonary symptoms are of the gastro-intestinal type. On examination of the chest, there may be scattered rales or rhonchi, but there may be no signs at all.

The blood shows a high leucocytic count with a high eosinophilic count. The absolute number of eosinophilic count may vary from 2,000 to 40,000 per cmm. The differential count shows 10 to 80% of eosinophils. The total WBCs rise from 10,000 to 45,000 per cmm. All eosinophils are mature. A high count is not directly related to the severity of symptoms. A patient with a high eosinophilic count may complain of less severity of symptoms while a patient with a comparatively lower eosinophilic count may be very sick. Blood culture does not yield any clue. Wassermann reaction may be false-positive, while Kahn test is negative. This false-positive

* Specially contributed to the ANTISEPTIC.

reaction (Wassermann test) might have led Weingarten to use arsenic for treatment and obtain good results. In one of his patients, who contracted syphilis and had eosinophilia, he used neoarsphenamine injections and got a dramatic response in the blood count as well as X-ray findings. He used it afterwards, as a routine and made it a rational treatment for this syndrome.

Any associated infection, may produce an eosinopænic response. Bone-marrow smears show an increase of eosinophilic cells in all stages of development and there is a relative diminution in neutrophil cells. Megakaryocytes are active. Liver biopsy shows cellular eosinophilic infiltration along portal tracts. The cold agglutinin test may be positive.

A radiological picture of the condition shows mottling, increase in hilar shadows, and striations. There may be cavitation; the lesion may be unilateral or bilateral, opacities, multicentric infiltration simulating tuberculosis. Usually there is no involvement of the pleura. There may be basal emphysema. The X-ray findings are not related to the severity of the symptoms and so is the eosinophilic count. The changes are chronic and may persist even after the symptoms have subsided. Tuberculosis (Chakravarty 1952), may be associated with tropical eosinophilia. Bronchiectasis may also be there. Electrocardiographic findings (Mehta 1958) show a pattern of hyperkalæmic changes and also left ventricular preponderance in some cases.

Pathologically, the observations are few, because of the relative benign course of the disease. There is lobular pneumonia, diffuse broncho-pneumonic patches; exudation in alveoli may be 70 to 100% eosinophil cells; also there is eosinophilic infiltration of alveoli and interstitial tissues. Giant cell formation is also seen. Some bronchioles show intense, leucocytic infiltration with a high eosinophilic count. Congestion, oedema and thrombi are seen in the small blood vessels. There is arteritis also. There may be scattered areas of interstitial fibroblastic proliferation and eosinophilic infiltration (Viswanathan 1947). Inoculation of guinea-pigs with brain or lung filtrates yields no results. Similarly the transfusion of blood from a patient to a normal man does not produce similar symptoms, suggesting that the disease is not transmissible. In this condition there is increased formation of eosinophilia in the bone-marrow and also increased. Two possibilities are now held definite:—This syndrome is either allergic, or it is infective. The allergic reaction is due to some infection. Bacteria, virus, mites, spirochætes, and helminths are blamed.

But no single antigenic or infective substance has yet been detected. This is a hypersensitive reaction to allergens

of pulmonary organs. The response to ACTH and adrenalin support this theory. The formation of hypereosinophilia, in food and tissue is an antigen-antibody reaction. And the response is mainly given by lung tissue, which is sensitized to the unknown sensitizing antigen. The specific effect of arsenic, aureomycin, diethyl-carbamazine citrate indicate that it is an infection. Intestinal parasites were held responsible, but there is no definite proof. All cases of tropical eosinophilia do not reveal parasites or ova in the stools even after thorough and repeated search. There is another and recent clinical possibility, known as visceral larvæ migrans (Beaver and Smith, 1953), due to invasion of the human by nematode larvæ of a species adapted to hosts other than human beings. Gaull and Webb (1957) found a nematode larva in the liver of a tropical eosinophilic patient. This would suggest the possibility of liver as a hiding place for this allergen. The parasitic assault on a solid organ like the liver by a larval nematode or its embryo may lead to visceral allergy, and produce a responsive eosinophilia in blood, eosinophilic infiltration of lungs with the resulting symptoms.

The role of the suprarenal cortex in regulating circulating eosinophils is very well recognized, though the actual mechanism is still ill-understood. The activity of the adrenal cortex can be judged by Thorn's test, when 25 mg. of ACTH is injected, and the circulating eosinophils drop by 75 per cent within 4 hours and there is a rise of 17-ketosteroid excretion in the urine.

The nature of the parasitic assault, its frequency and intensity depend upon host response and tolerance and also the speed and duration of the invasion. Polyparasitism may exhaust the eosinophilogenic reacting power of the body. It is to be noted that heavy parasitic infestations do not result in tropical eosinophilia. This does not rule out the possibility of some parasites causing tropical eosinophilia. In spite of the term tropical eosinophilia having become well-established, it is far from being a satisfactory or precise term. Ball (1950) suggests the term pulmonary infiltration with eosinophilia (*PIE syndrome*).

Arsenic yields good results in treatment, but it is not without toxic effects, the worst being encephalitis and neuritis. Moreover, there may be initial exaggeration of symptoms, perhaps due to a massive breakdown of the circulating and visceral eosinophils; so it is practically discarded nowadays. Further, some cases do not respond to arsenic treatment. Other drugs tried are aureomycin, bismuth, diethyl carbamazine citrate. But only diethyl carbamazine citrate (Hetrazan, Dicarbazine, Banocide) have so far proved to be the drugs of choice. Isoniazid (anatra, Lewis). This drug is used orally in doses of 13 mg./

per kg. of body-weight. The treatment lasts for 6 days. Response to treatment is very good as the symptoms clear up. It is less toxic and well tolerated and there is no initial exaggeration of symptoms. This drug was discovered during the last war for the treatment of filariasis and subsequently it was tried for round-worm infection. It has given gratifying results in tropical eosinophilia and the treatment being successful, it has been tried parenterally also as intra-muscular injections. The parenteral use of diethyl carbamazine citrate gives equally gratifying results and the drug is well tolerated and quick in action, very simple to use and also economical. This drug was used by me in some cases of tropical eosinophilia and these three cases are detailed below:—

Material and methods.—I used diethyl carbamazine citrate in injectable form, containing 0.4 g. of the drug and 7.5 mg. of Diphenhydramin hydrochloride, the latter being an anti-histamine combined to overcome any unpleasant side-reaction of the drug. The dose used was 6 mg./kg. body weight and was injected intramuscularly in the gluteal area; it was repeated after 2 days. The patient was asked to lie down fifteen minutes after injection to avoid giddiness or other side-reactions. Total WBC and differential counts were noted and tested periodically in order to assess the reduction. An X-ray picture of the chest was taken before and after the treatment.

Results.—There was prompt relief of symptoms and the patients who were previously harassed by disturbing cough slept well. Cough was reduced, dyspnoea diminished and there was a feeling of well-being. No toxic symptoms immediate or late were noted. The injections were comparatively less painful and no local discomfort was felt. There was a reduction in total WBC and eosinophil counts. The X-ray findings also showed the clearing of mottling.

Case reports.—**CASE 1:**—Mrs. S., a house-wife, aged 40, complained of severe cough and dyspnoea persistent and troublesome, more at night. There was loss of weight and front chest pain. There was anorexia and paleness of the body, and low fever; duration of symptoms was three months. The clinical findings were negative except wheezing sounds in chest and a few rhonchi were auscultated. Pulse 80; B.P. 125/80. Respiration normal. Temperature normal. Total WBC 22,950 per cmm; neutrophils 13%. Eosinophils 74%. Basophil 0%. Monocytes 1%, Lymphocytes 12%. ESR 47 mm. per hour (Westergren). X-ray of the chest showed bilateral mottling (see Fig. 1, p. 735). The patient was given diethyl carbamazine citrate in the above dose and the second injection was given after two days. She felt better the same day and at night the disturbing cough subsided to a great extent and all the symptoms gradually

subsided in 4 days. The blood count was repeated and it showed:—Total WBC 9200 per cm., neutrophils 41%, eosinophils 31%, monocytes 3%, lymphocytes 25%; ESR was 54 mm. per hour.

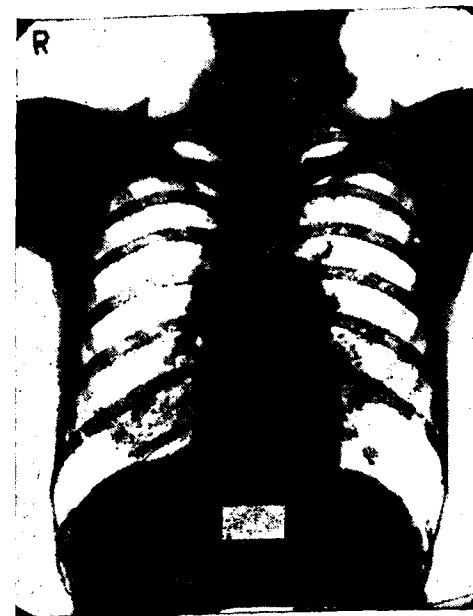


FIG. 1

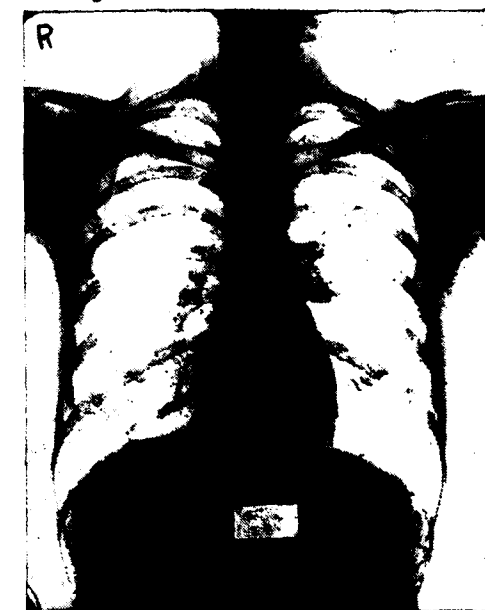


FIG. 2

The X-ray picture showed a marked diminution of mottling; (see Fig. 2) opacities were reduced. Her appetite increased and she felt much better. A total of two injections was given.

CASE 2:—Mr. S., clerk, aged 37 years, complained of dyspnoea and dry cough since one month. He was much upset as his sleep was disturbed. The clinical findings were negative except diminished respiratory murmur over the apex of the chest. Pulse 74; B.P. 110/70. Respiration normal. Temperature 98°F. His blood examination showed total WBC 21600 per cm., neutrophils 15%, eosinophils 74%, basophils 0%, lymphocytes 10%, monocytes 1%. ESR 32 mm. per hour (Westergren). An X-ray picture of the chest showed bilateral mottling (see Fig. 3, p. 736). The patient was given 2 injections of diethyl carbamazine citrate, intramuscularly at an interval of 2 days. The symptoms subsided within 4 days and he became symptom-free. Blood examination after injection showed total WBC 21,800 per cmm., neutrophils 28%, eosinophils 57%, basophils 0%, lymphocytes 14%, monocytes 1%. After 4 days, total WBC was 11,500 per cmm., neutrophils 36%, eosinophils 50%, basophils 0%, lymphocytes 13%, monocytes 1%. X-ray picture of the chest after treatment showed improvement (see Fig. 4, p. 736). Two injections were given in all.

CASE 3:—Mr. B.N., a factory worker, aged 40 years, complained of cough and dyspnoea of 6 months' duration. There was pain in the chest and disturbed sleep due to asthma. The

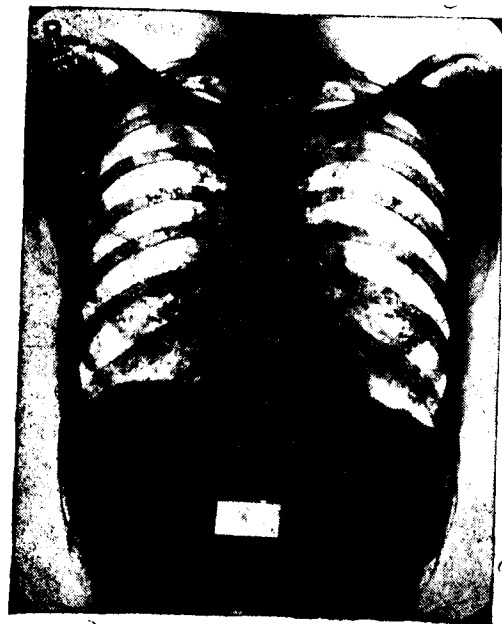


FIG. 3

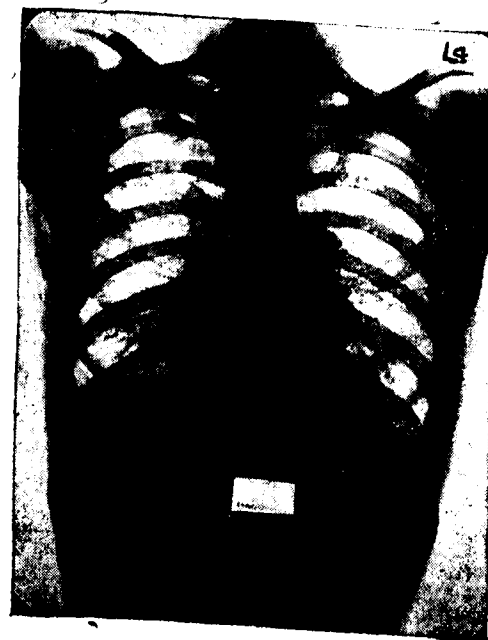


FIG. 4

clinical signs were those of bronchial asthma. Pulse 80; B.P. 110/80; respiration 30; temperature normal. Blood examination showed total WBC 34,400 per cmm., neutrophils 7%, eosinophils 78%, basophils 0%, lymphocytes 14%, monocytes 1%. Screening of the chest showed signs of bronchitis and bronchial prominence. He was given two injections of diethyl carbamazine citrate intramuscularly. All the symptoms subsided within 4 days. His blood count after treatment was:—total WBC 15,600 per cmm. neutrophils 32%, eosinophils 46%, basophils 0%, lymphocytes 21%, monocytes 1%. Only two injections were given in all.

Discussion.—From the above observations it will be seen that the response to treatment was good and quick, and better than the oral route. The method is simple and short and the treatment is also economical. Intramuscular injections are not painful and no initial exaggeration of the symptoms was noted. The parenteral route is to be preferred to the oral, where large doses are necessary and the treatment has to be prolonged. The reduction of eosinophils is gradual and not complete, though the symptoms subside early and completely. Thus all the above cases showed a still high eosinophilic count after the two injections, though the symptoms were greatly reduced.

Summary.—(1) Three cases of tropical eosinophilia were treated with diethyl-carbamazine-citrate parenterally. (2) Prompt response was seen within 48 hours and the patients were symptom-free after 4 days. (3) No systemic toxicity was noted. (4) Reduction in eosinophils was gradual and not complete. (5) X-ray plates showed improvement. A review of the literature and findings relating to tropical eosinophilia is also given.

Acknowledgement.—I am grateful to Mr. A. V. Mody of Unichem-Laboratories, Bombay 26, for a free supply of Diethyl-carbamazine-citrate (Unicarbazon) for trial.

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ISONIAZID TREATMENT OF EARLY AMBULANT CASES OF PULMONARY TUBERCULOSIS

Dr. K. Teh-Lung *et al* of Tientsin have treated 254 active, early minimal cases with INH without stoppage of work or study and present an appraisal of the results.

Cases were selected by the following criteria: (a) The location of the lesions was supraclavicular or infraclavicular, unilateral or bilateral, the total area of the lesions not exceeding $\frac{1}{4}$ of one lung. (b) Radiographically the lesion was active but with no apparent evidence of cavitation on the posteroanterior view (cases whose lesions completely resolved in 2 months were excluded to rule out transient pneumonitis. (c) Sputum examination was negative for tubercle bacilli on direct smears. (d) The general condition was good with slight or no symptoms. (e) No antimicrobial drugs had been given previously.

In all of the cases the daily dose of INH was at least 150 mg. during the first 2 months of treatment and no less than 2 follow-up examinations were made in a period of 6 months.

It is a well-known fact that the earlier the stage of the lesion the better the result with antimicrobial medication.

The therapeutic effect and relative harmlessness of INH are being recognized. Mackaness showed that it is effective intracellularly. Medlar observed that its effect is especially pronounced with perifocal infiltration. Auerbach pointed out that it can induce encapsulation of caseous foci. Deuschle advocated prolonged use of INH alone for progressive pulmonary tuberculosis.

Of our 254 cases of active, early, minimal pulmonary tuberculosis treated over a period of 1 year with INH alone with the patients at work, 79.1 percent showed improvement, while 3.1 percent became worse. In our earlier series where no medication was given, only 14.3 percent showed improvement and 13.2 percent became worse. The therapeutic value of INH is therefore quite evident.—(*Chinese Med. Jour.*, 76: April 1958).

THE RELATIONSHIP OF THE ADRENAL CORTEX TO ESSENTIAL AND RENAL HYPERTENSION

Observations based on animal and human experiments during the last ten years suggest that the adrenal glands may be linked with essential hypertension through a salt-regulating mechanism, and in fact the beneficial effects of salt restriction in human hypertension have long been recognized. Of the various adrenal cortical hormones the first "mineralo-corticoid" to be implicated was deoxycortone; more recent work suggests that aldosterone may be equally if not more important than deoxycortone. The method of action is uncertain, but it is known that these hormones regulate sodium and chloride balance, and recent work, summarized by Ledingham (1957) suggests that variations in sodium concentration may alter the calibre of small arteries and arterioles.

A number of surgeons have since practised total or subtotal adrenalectomy for selected cases of essential hypertension. The results have not been uniformly successful, but benefit has been claimed in certain cases showing left ventricular failure with severe hypertensive retinal changes; the presence of clinical renal damage is an absolute contra-indication to the operation.

Although there is much evidence to implicate the adrenal glands in essential hypertension, few studies have been made of the glands themselves.

The adrenal gland appears to secrete 3 main groups of hormones, namely, the 11-oxycorticosteroids or glucocorticoids, which influence carbohydrate metabolism, and of which cortisone and hydrocortisone are examples; the 11-deoxycorticosteroids or mineralo-corticoids which control electrolyte metabolism with particular reference to sodium and chloride, of which deoxycortone is a synthetic homologue; and certain sex hormones. In addition there is the recently discovered aldosterone which appears to be allied to the mineralocorticoids and also powerfully influences the metabolism of sodium and chloride.

The post-mortem findings were compared by Dr. Dawson, Director of the Vincent Square Laboratory, London, in 45 well documented cases of essential hypertension—all of whom showed left ventricular hypertrophy attributable solely to the hypertension, and all of whom had demonstrable hypertensive arterial changes in the kidney on microscopy—with those of 22 well documented cases of renal hypertension all of whom similarly showed left ventricular hypertrophy and demonstrable renal lesions, and with those of 45 control cases showing no evidence of ventricular hypertrophy and previously known to be either normotensive or under the age of 30 (when normotension was assumed).

Dawson considers that the adrenal cortex is implicated in essential and renal hypertension, but that in renal hypertension certainly, and in essential hypertension probably, the implication is secondary. He thinks that is suggestive—though not proven—that the hyperplasia of the zona fasciculata may be associated with disturbances in sodium and chloride metabolism and the alteration in sodium metabolism may reduce the calibre of small arteries and arterioles and so give rise to hypertension. He puts forward the theory, tentatively, and only as a basis for future work, that in essential hypertension there may be a primary defect in the renal tubules which interferes with or alters the normal sodium, chloride and water exchanges, giving rise to a secondary adrenal cortical hyperplasia; that in renal hypertension a similar defect is associated with organic renal damage; and that in experimental hypertension such a change may be induced by alterations in the renal pulse pressure or blood flow.—(Univ. Leeds. Med. Jour., 6: 1957).

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OCULAR MANIFESTATIONS OF TEMPORAL ARTERITIS*

NABIN KISHORE BIDYADHAR, M.B., B.S., F.I.C.S.,
Civil Surgeon, Koraput (Orissa)

TEMPORAL arteritis is a disease entity with a local and systemic symptom-complex attacking elderly patients of both sexes between 55 and 80 years of age. Its characteristic features are that it is generally a benign self-limiting affection, insidious in its onset and lasting for several months. In effect, temporal arteritis is a generalized arterial disease with the characteristic features that the arterial manifestations are mostly confined to the superficial cranial arteries and branches of the ophthalmic artery. Pathologically it is an inflammation of the temporal arteries of the scalp and of the branches of the ophthalmic artery, although other systemic deep vessels such as the aorta and its branches do not escape the ravages of this disease-process as revealed by the exhibition of general symptoms of illness and generalized bodily pain. The lesion may be localized to one segment of the temporal artery or it may extend along the vessel producing obstruction at several points.

I shall briefly review the literature on the subject dealing mainly with the ocular manifestations of temporal arteritis which are of outstanding clinical importance in view of the special involvement of the arteries of the optic nerve in most cases of this disease entity, causing a rapid deterioration of vision which is usually manifested in both eyes, usually followed by an uncertain and limited recovery. A brief reference will be made to the aetiology, pathology, symptomatology, diagnosis, prognosis and treatment.

Historical.—This disease was first detected and described by Jonathan Hutchinson in 1890. Originally considered to be a rare affection, its incidence has since been noted frequently by modern ophthalmologists. The ocular manifestations and complications have been studied in modern times by several observers, outstanding among whom are Cooke *et al* (1946), Bruce (1950), Parson-Smith (1952), Whitfield *et al* (1953) and Cloake (1954) and others.

Aetiology.—Both sexes are equally affected, although some observers have noted a greater incidence in elderly women. It attacks persons generally between the ages of 55 and 80. As this affection occurs chiefly in elderly subjects, its association with arteriosclerosis is inevitably common. This disorder has been attributed to infection, although attempts so far have not been successful in discovering organisms in the diseased arteries. It is also considered to be of allergic origin by others and

*Specially contributed to the ANTISEPTIC

attributed to vaso-allergy, but no allergen has been suggested so far nor any previous allergic history is even elicited (Cloake). As such the ætiology is yet unspecified. I have however, observed a case of temporal arteritis in an aged individual with a history of allergy.

Pathology.—Temporal arteritis is mainly a vascular affection in which the involvement of temporal occipital arteries and also of the ophthalmic artery and its branches is predominant. Other systemic arteries such as the aorta and its primary and secondary branches, and also occasionally the pulmonary artery are also affected.

A histological examination will reveal the presence of organized thrombosis, intimal proliferation, medial necrosis with giant-cell reaction and adventitial inflammatory reaction. The lesion may generally involve a sector or the whole circumference of the artery with a tendency to spread axially. The systemic disturbances and the self-limiting course are in favour of an acute or subacute infective process affecting persons over 55 years of age; so the blood vessels of people in the older age groups seem to be more vulnerable to infection. Pathologists are yet undecided whether to classify temporal arteritis as a separate disease or group it along with polyarteritis nodosa, eosinophilic arteritis, thrombo-angiitis obliterans and the collagen diseases.

Symptomatology.—These are both generalized and localized. The patient would complain of general indisposition for months before specific symptoms appear. There may be fever, malaise, loss of appetite, loss of weight, night sweats and progressive anæmia. There may also be pain and sweating in the joints, headache and generalized weakness.

In an established case the patient would complain of either the presence of dull boring pains or sharp stabbing pains appearing in the region of the temporal and occipital arteries. On examination one would elicit extreme tenderness over the inflamed temporal arteries which would be found hard and nodular; pulsation may be elicited in the artery but it may be absent due to the incidence of thrombosis. The patient may not have sound sleep, mainly on account of severe generalized headaches.

Ophthalmic complications.—Various ophthalmic complications such as retinal phlebitis, obstruction of the central retinal artery, periarterial retinal exudation, blurring of optic discs, œdema of the discs with exudative hæmorrhages, peripapillary atrophy and macular degeneration may occur in the course of the diseases. In an analysis, Bruce listed 84 cases of which thirty four cases manifested ocular complications due to:—

(i) Occlusion of retinal artery within the optic nerve; (ii) ischæmic retrobulbar neuritis due to involvement of the retinal artery before it enters the optic nerve; (iii) indeterminate groups including unaccounted for loss of vision, retinal phlebitis, photophobia and sub-retinal hæmorrhage.

The various ocular symptoms and signs are due to the disease-process affecting the arterial supply of the optic and oculomotor nerve and the retina. Function is restored in cases wherein the degree of ischæmia is not great.

Vision:—Defects of vision more or less severe in one or both eyes may occur in 40% of cases, while oculo-motor disorders may be manifested in the rest. The loss of vision may be of sudden onset, the patient becoming blind in a few hours or it may be slow in its onset.

Field of vision:—There may be sectoral defects, scotomata, extensive loss in upper, lower, temporal or nasal fields, or there may be generalized constriction of the visual field. The two eyes may show quite different field losses.

Oculomotor disorders:—These disorders include slight strabismus, diplopia and ptosis. Often pupillary changes are encountered such as anisocoria, dilatation or contraction of pupil, irregularly and loss of reaction to light or accommodation or both.

Clinical examination:—This would reveal a moderate hypochromic anæmia which progresses with variable leucocytosis and elevated sedimentation rate. The renal functions are undisturbed and the urine examination does not show any abnormality.

Diagnosis.—This is easily clinched if the temporal arteries are inflamed; otherwise the history of severe generalized headache with extreme tenderness in the scalp and marked malaise and indisposition in a patient over 55 years of age would suggest the presence of temporal arteritis. A diagnostic confirmatory evidence would be the incidence of either unilateral or bilateral impairment of vision at this stage, especially in the absence of fundal changes or in the presence of changes in fundus or fields compatible with retinal arterial diseases.

In the differential diagnosis, one may suspect the presence of cerebral tumour especially from the co-existence of headache and papilloedema, but the early loss of vision would indicate the inflammatory nature of the latter and one may not find any signs of organic cerebral disease.

Course of the disease.—The duration of the disease is usually limited to many months from the onset of general symptoms of illness. The disease usually attains its climax after the inflammation of the cranial arteries are pathologically established and

after the visual disorders develop; subsequently to this the general symptoms usually subside in favourable cases.

Prognosis.—The condition usually improves gradually and completely over the course of several months, although death has occurred during the course of the disease in a good number of cases, generally from coronary or cerebral thrombosis.

TREATMENT:—The best and most satisfactory therapy consists of the administration of cortisone either through the intramuscular or oral route. Recourse may also be had to the use of ACTH intramuscularly or by slow intravenous infusion. These therapeutic measures are beneficial in rapidly allaying or abolishing the symptoms of active disease *namely* the malaise, poor appetite, depression, head-pain, pyrexia and arterial inflammation etc. Very satisfactory results would be apparent in case of non-manifestation of ocular involvement, while in case of well manifested ocular involvement some improvement is sure to be seen and further deterioration is bound to be halted.

As for the dosage of Cortisone, it may be used in a dosage of 200 to 300 mg. a day maintained after 7 days at the rate of 75 mg. a day. As for ACTH it is most useful when 20 mg. doses are given daily in a slow intravenous drip. This therapy may be continued after a week as intramuscular ACTH or gel. Cortisone may also be administered orally for maintenance. In case of involvement of the deeper vessels, one has to maintain the treatment for a longer interval taking special precaution in case peptic ulceration is present. For subsidiary and corollary therapeutic measures, one should have recourse to aspirin which is reported to be very effective in relieving headaches, and the general use of salicylates in alleviating bodily aches.

The use of anticoagulants is called for when visual symptoms have begun to manifest. Of these heparin is the best; a four hourly dose of 5000 units is given intravenously, clotting time being maintained between 15 and 20 minutes. To bring the clotting time to normal, 5 to 10 cc. of 1% sterile protamine is injected intravenously; in case a rigour or spontaneous bleeding occurs, one should note that the anticoagulant therapy has to be maintained for a few days during the period that ACTH therapy is instituted.

Summary.—The ocular manifestations of temporal arteritis are reported.

The efficacy of the modern therapeutic agents—CORTISONE and ACTH is briefly stated.

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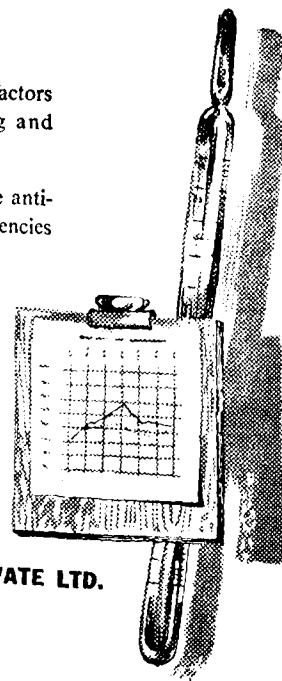
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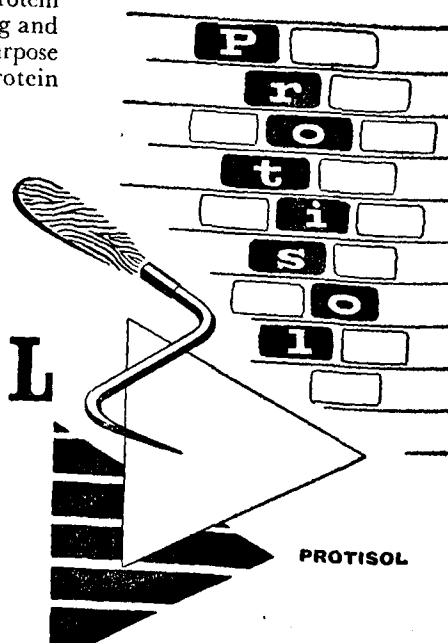
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HEART DISEASE AND WAY OF LIFE FOR ITS PREVENTION*

B. K. WADIA, M.B., L.O., B.Sc. (Hons.),
Ex-Senior H. Surgeon, Mayo and of Eye Hospital and Medical College,
Ex-Lecturer in Materia Medica, &c., Calcutta

THERE have been appearing conflicting views on heart disease by doctors themselves who have a mortal subconscious fear of it as it is very common among them. Fats and animal oils are incriminated, as well as vegetable oils. Sport and certain healthy vocations like football, motor-cycling and taxi-driving, are also strangely condemned, (*Hindustan Standard* dated 13-3-'58). Mental and emotional strain is also tarred. On analysing the conflicting views some lessons stand out prominently as the common platform of agreement; they are:—

1. Nutrition.—An all-round diet as distinct from lopsided ones deficient in one or more of the essential requirements of the body e.g., animal or first class proteins—meat, eggs, fish, owl, wheat etc., or lactovegetarian (purely vegetarian being a deficient diet) and auxiliary or vitamin-containing foods not rendered useless by overcooking—is the safest of all. Excess of one element at the expense of other vital ones tells on the health sooner or later.

2. Autointoxication.—But whatever the diet, simple frugal or in excess, if it is not burnt up completely in the body by exercise, the poisonous products of incomplete consumption tell on the blood-vessels, the heart, the liver, the kidneys etc. and produce diseases of degeneration. England's health was never so good as on the frugal diet of the last two wars.

3. Poisoning by mental stress.—Any amount of mental stress and strain is offset by physical exercise, and a philosophical outlook on life, a life that by its very nature is full of disappointment, worries and reactions of our fast, too ambitious and impatient tenor of living. Sir John Hunter survived attacks of angina pectoris until his annoyance at his critics while lecturing before a scientific gathering, precipitated his last and fatal attack. He used to say that his life was in the hands of those who would irritate him.

Avarice or haste in acquiring wealth, fame and power in place of legitimate ambition for betterment and progress was rightly condemned by Thomas Gray in his monumental "*Elegy*."

Tranquillity and contentment with our lot when all our egotimate efforts are exhausted, *plus* good cheer are the epithets of the Chinese God of Long Life (whose picture adorns my table).

Hurry and worry on the other hand exhaust the ductless glands and vitality and lead to senescence and disease.

*Specially contributed to the ANTISEPTIC.

Exercise and sport have never cut short our life as in the philosophies of Greece, Rome and Persia or India of old, (who all fell when they gave them up) unless done in excess as a mere fetish unbalanced by good food, due rest and tranquillity of mind.

Mussolini like his ancient famous predecessor Machiavelli, drilled his officers more than his infantry into a state permanent efficiency with the latter's idea of making them controlling their soldiers and of quelling any mutiny by them.

Taxi drivers unlike the labourers may die through sedentary life at the wheel but not through their healthy, fresh-air vocation. All athletes and sportsmen including footballers have trained their body and heart to such a pitch of efficiency that they are not affected by stresses and strains of life except by disease, addictions like smoking and alcohol and deficient diet, or by a fast, restless exhausting way of life.

Exercise—natural and physiological.—The human body is very resilient and able to bear all shocks of life, provided we give it sufficient time and scope to adjust itself to them (like the collateral circulation replacing in time the vascular-sclerosed tissues). The present false fear of exercise harming the body should give way to the real fear of a dangerous life of ease and immobility leading to disease and death.

Man like animals is a mobile being and even the apparently still plant is constantly on the move in the inner working of its body from its roots to its leaves. Rheumatic troubles and the diabetes of the obese and even hypertension subside only with proper activity and mobility, but worsen with immobility and a life of ease and comfort. Even the infant digests its food lying but with active movements of limbs and crying and similarly by the old rocking.

Exercise rejuvenates the body already clogged and overwhelmed by our own products of deficient combustion of food, tissue wear and mental stress that go to poison our system and cut short our lives by producing degenerative diseases and inadequate resistance against disease and environment.

A tummy preventing a view of the parts below and allowed to bulge unchecked by churning-up exercises (as a Maharaja of S. India used to do on a mechanical horse) becomes a cess-pool of such poisonous waste-products poisoning the system and by its back-pressure on the heart and lungs impeding their proper function and leading to a fatty dilated failing heart.

Col. Deare, my old teacher and Principal of the Medical College used to tell us that they were healthy because of their partaking of sport and physical exercises etc. But when

they pass out from the college and become burra sahibs at business or office, their routine of life would be from home down the lift into the car, then at the office going up by lift, then back by the same route into home and an easy chair and so later on to invalidism and premature death. He said that he kept himself fit by daily toe-touching and other exercises as shown by his upright-bearing and posture inspite of his age.

Coronary disease and exercise.—The present trend of opinion revealed by advances in medicine puts down the increasing mortality from coronary disease to want of physical exercise.

I. Gordon (*Lancet*, ii: 1211, 1953) writes:—"Coronary disease is due to high fat consumption as in U.S.A. and want of exercise. Exercise increases the blood flow in coronary arteries and prevents cholesterol deposition."

E. Rentoul (*Lancet*, ii: 1261, 1952) writes:—"Vigorous exercise leads to bigger coronary arteries (as we find that the elbow veins are easier to inject in athletes) with consequent less chance for obstructions developing into the vessel walls, because of faster blood flow and more for the safe play of atheromatous plaques.

Vigorous contraction of abdominal vessels as by clamping of the aorta during attempts at resuscitation produces more coronary blood flow. Incidence of the disease is lower in women and this fact is favoured by skipping exercise or Scottish highlander dancing.

Q. A., *B.M.J.*, 1: 962, 1957 mentions:—"Modern life, mental and physical stress, frustrated ambition and exceptional fatigue and high responsibility, conduce to it (coronary disease). Most agree that a sedentary life with little exercise and over-indulgence in rich foods is a more likely basis of it than physically strenuous habit of life coupled with simple moderate diet.

Prophylaxis against coronary disease for professional men consists in: (1) Walking (at long military strides) and/or golf or other outdoor sport. (2) Avoidance of obesity. (3) Avoidance of rush and hurry. (4) Moderate use of animal fats and rich food. (5) Moderation in alcohol and tobacco."

H. Engelberg, *A. J. Oph.*, 43: 634 (No. 4), 1957, writes:—"A present concept of the genesis of arteriosclerosis is that:-(1) It is initiated by entrapment of the larger lipoprotein molecules in the interstices of walls of the intima of arteries. (2) Subjects with coronary atherosclerosis have reduced heparin levels during life. (3) They present a lower number of mast cells at autopsy. These cells are known to constitute the main source of endogenous heparin. Reduction in size of lipoprotein molecules may prevent formation of lipoprotein films and sludges which coat the internal surfaces and interfere with normal metabolic interchange."

Longevity, biology and psychic science.—That the present Indian span of life (below 25) is unnatural is supported by the following :—

(1) *Scientific observations* on animals etc., which show that the figure (life-span) is six times the span of growth viz., in man : 6 x 25 or 150 years.

(2) *Scriptural evidence* :—Man's average life-span is taken as consisting of figures ranging from seventy of the Bible, 108 years (*Ashtotri*) and 120 years (*Vinshotri*) of the two respective schools of Indian astrology, to 150 years of the Parsi scripture (*Chithrem buiyad*). The last two schools of the 2 sister Aryan races—the Hindus and the Parsis have the above different figures of longevity suited to the tropical and the temperate climates respectively.

Known examples of the modern age conform to these figures viz., Thomas Parr buried in Westminster Abbey at age 150, Zaro Aga the Turk, whose age at death was 165 years. Xavier Pereira of Monteiro, N. Columbia at 169 died on 20-3-1958 (born 1789). And other such cases are reported from time to time.

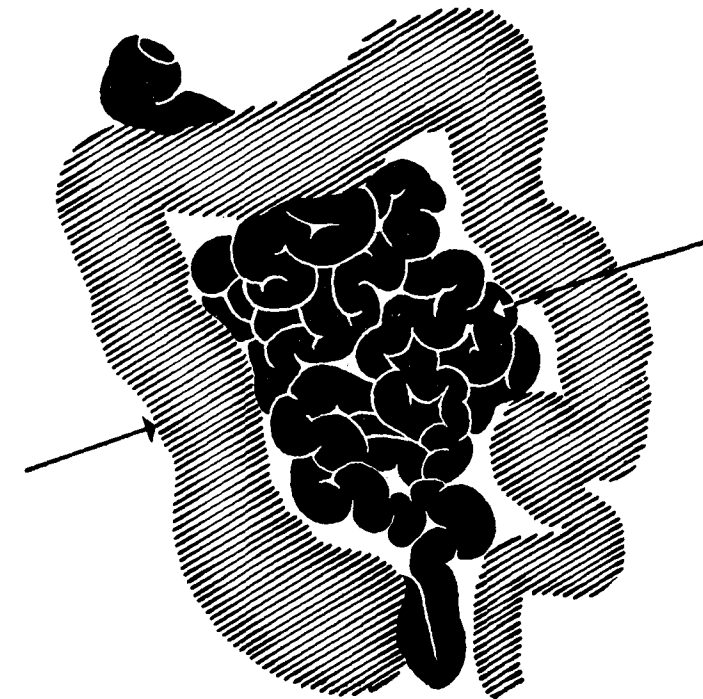
(3) The life-spans of different races have increased with better conditions of life e.g., Japanese settled in America differ from those in their motherland by an increase in height and weight, though both the lands are situated in similar latitudes. Life-spans average more than double in the West, than in India and the East.

The fear that long lives are a burden on society and economics is unfounded when we know that experience and wisdom grow with age and that nature adjusts herself beautifully well to different conditions of life, the fecundity decreasing with age, the proportions of birth and death in the two sexes getting automatically adjusted by nature to different conditions like war, pestilence, natural catastrophes and birth-control measures; even if the evidence presented by the newly observed psychic phenomenon of life after death that well and long-lived lives on earth do not return to this earthly life for thousands of years is discontinued for while (although scientists and keen observers) like Sir A. Conan Doyle, Sir W. Crookes, Sir Oliver Lodge, Prof. Ritchie etc., have testified by their own experiences to the veracity of this natural phenomenon of life after death—a huge volume of literature having since grown in the West.

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It is a wise office nurse who allots the last appointment to the "problem patient" so that she can have the opportunity and time to talk out the problem—and it is a wise physician who allots the time to listen.—(John H. Holzaepfel: Premarital examinations and conception control, *Western Journal Surgery, Obstetrics and Gynaecology*, November-December 1957, via *Current Medical Digest*, April 1958),

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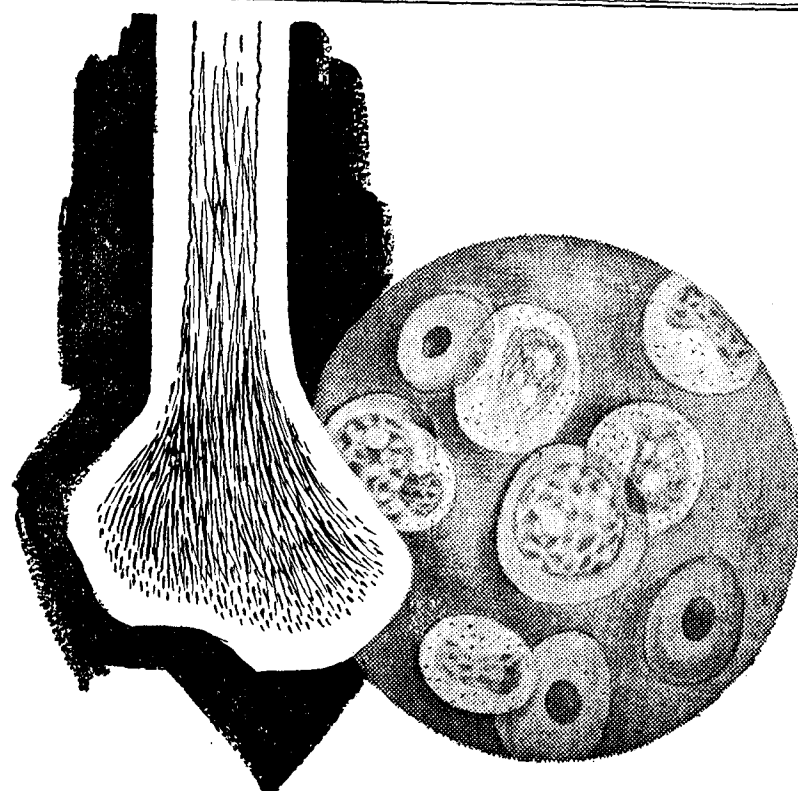
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Cases and Comments

BESTIO-SEXUALITY

Report of a Case

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Department of Forensic Medicine, Osmania Medical College, Hyderabad

It is well known that cases of bestio-sexuality, also termed bestiality, rarely occur in India (*Modi and Lyons*).

Very few cases of bestiality have been reported in the literature, and most of these are from the villages. Bestiality is very rarely found in towns (*Havelock Ellis*). So a rare case of bestiality which occurred in a Metropolitan City, in which an adolescent boy was prompted to commit the crime after overhearing a description of the act of coitus, and which ended in a conviction by a court of law, is here reported, as it may be of special interest.

Case report.—On 24th July, 1955, J., an unmarried boy aged 15 years, a scavenger by profession was brought by the Police to the City Police Hospital, Hyderabad, with the allegation that he had committed bestiality on a she-goat in a burial ground in the City, at about 4 p.m. on that day.

A few days prior to the incident, he had overheard some of the grown-ups of the locality explaining to a would-be bridegroom, with great animation and gusto, the conjugal pleasures of the nuptial night that he was shortly to enjoy. Since then, the idea had been growing in the boy's mind, of trying out things for himself. As girls would not be available, to satisfy his newly acquired amorous desires, except for money which he had not got, he appears to have hit upon this unnatural plan.

On 24th July, 1955, at about 4 p.m. he saw some goats grazing on a burial ground and acting on a sudden impulse, he caught hold of a she-goat, threw it down on the ground on its back, held it firmly down by its hind legs with his left hand, and himself assuming the squatting position, had intercourse with it through its vagina. The genitals of the goat were injured and started bleeding. On hearing its bleating, a chowkidar in a neighbouring godown caught hold of the boy. A few others had also, gathered by that time; they fisted the boy and beat him with sticks and took him to the Police Station.

On examination, it was found that the boy was 15 years old, 5 feet 1 inch tall and weighed 91 pounds. He was of a thin build (see *Photograph 1*, p. 748). He had no moustache or beard. The axillary hair was $\frac{1}{4}$ inch long and downy. The pubic hair was recently shaved off suggesting deliberate preparations for intercourse. The boy appeared to be somewhat shy and guilty, both in talk and behaviour.

Suspicious blood and mud stains were seen on his upper and under-clothing which were all sent to the Chemical Examiner for examination. There was no injury to his genitals and there was no evidence of any venereal disease. A number of contusions were however, seen on his body which were consistent with those that would have been caused by beating with sticks (see *Photograph 2*), which shows one such injury to his chest.



1. Photograph of the boy

was red and congested and streaked with blood. A swab from the vagina was reported by the Chemical Examiner to show human spermatozoa.

Trial.—The boy was tried in the Juvenile Court and found guilty of the offence of bestiality under Section 377 of the Indian Penal Code, and after due admonition was released as this was his first offence.

Discussion.—*Medico-Legal aspects*:—Bestiality is defined as sexual intercourse by a human being with a lower animal. This is a wide and comprehensive definition and takes into account bestiality by men and by women, on all species of animals that are employed for the purpose, and all manners of intercourse, whether by the vagina or through any other orifice.

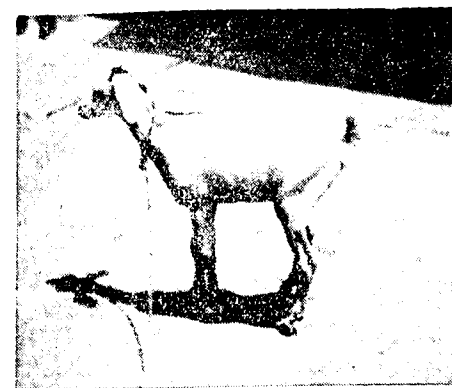
The Chemical Examiner reported that on an examination of the boy's clothes, goat's hairs were found and that the stains were those of goat's blood.

The animal was examined by a veterinary surgeon. The animal was about six months old; its back was arched (see *Photograph 3*, p. 749) and the hind limbs were broad-based (see *Photograph 4*, p. 749) both due to pain. Its gait was also painful; the vulva



2. Note contusion on chest caused by a stick

Glaister defines bestiality as 'the term applied to sexual intercourse between a person of the male sex and on animal, whether by the anus or by the vagina.' This definition is incomplete, in as much as it does not cover bestiality by women as also intercourse through orifices such as the nose etc. It is a



3. Note the arched back



4. Note the broad-based hind limbs

well known fact that bestiality among women is rarer than among men.

In Lyons's Medical Jurisprudence it is mentioned that 'this offence in which a human male is the active agent is occasionally met with in India.' This also gives an erroneous idea that women do not practise bestiality in India.

Section 377 of the *Indian Penal Code*, which deals with the offence of bestiality, in addition to other sexual offences such as sodomy etc. reads as follows, "whoever voluntarily has carnal intercourse against the order of nature, with man, woman or animal, shall be punished.....". As in rape, partial penetration is sufficient to constitute the offence and there need not be emission to complete the offence.

Animal contacts.—The animals that are reported to have been employed for the purpose of bestiality include mares, asses, reindeers, bears, goats, monkeys, sows, cats and rarely even ducks, fish, crocodiles and snakes! It will thus be seen that no animal is exempt from such attacks!

It will be surprising to know that even the cow is used for such a base purpose even in India, where it is held in great veneration as a sacred animal! Chevers mentions a case (from the Records of Unnatural Crime), of bestiality with a cow at a Dinagepore.

A German case of bestiality with a mare is described in Taylor's Principles and Practice of Medical Jurisprudence. Glaister mentions a case of bestiality with domestic fowls.

Because of their convenient size, only calves and sheep are commonly employed for this purpose. Glaister also mentions a case of bestiality with a she-goat.

Sexual intercourse may take place through the vagina, the anus or through any other orifice such as the nose. Modi mentions one case of sexual intercourse per nose, with a bullock, which was regarded as a case of bestiality within the terms of Sec. 377, I.P.C. Havelock Ellis describes the case of a sixteen year old boy who was engaged in *rectal* coitus with a large dog.

Prevalence.—Havelock Ellis states that bestiality is a sexual perversion of dull, insensitive and unfastidious persons. It occurs among primitive people and peasants. It is also seen among shepherds who graze animals on lonely fields and so have opportunities for secret and free access to them. He says that bestiality was at one time so common among the shepherds of Europe that priests in confession habitually inquired of herdsmen if they had anything to do with their sows. Bestiality is also common among superstitious and ignorant men who believe that gonorrhoea is cured by intercourse with a she-ass! Modi describes the case of a Mahomedan male committing bestiality with a she-ass. Quoting Dr. S. Coull Mackenzie, Chevers states that in the Punjab, men suffering from gonorrhoea consider that unnatural connexion with a goat is a cure.

In the case of the shepherd, his sexual stimulation is usually sympathetic with the coitus which he observes among the animals he tends. He imitates what he has seen. As Kinsey remarks, 'such sympathetic emotional responses are natural enough and not fundamentally different from those which would be expected' if the boy were to observe coitus among human subjects.

It is an erroneous belief that a repulsive and abominable crime such as bestiality will exist only in backward and uneducated people. It prevails even in modern civilized countries also. Kinsey and his co-workers, who have been studying sexual behaviour in both sexes in America, have confirmed its existence in America.

Sex.—Bestiality may be committed by either man or woman with any animal. According to Kinsey, among 5360 men whose sex life he analysed, only 0.3% had experienced sexual outlet by animal practices. Bestio-sexuality among women is rarer still, but may be practised with domestic dogs. This has the same psychological basis as in man. Havelock Ellis says that

sexual feeling may be produced in hyperæsthetic women by casual contact with pet dogs and cats. He also mentions cases of sexual intercourse by women prostitutes with dogs, exhibited to spectators on payment of a small fee! This was so popular that a prostitute declared that a woman who had once copulated with a dog would ever afterwards prefer this animal to man! Women are known to have had intercourse with various animals, occasionally or habitually, in various parts of the world. Monkeys have been mentioned in this connexion. The possibility of sexual excitement between women and animals involves a certain degree of sexual excitability in animals from contact with women. Darwin stated that there could be no doubt that various quadrumanous animals could distinguish women from men, in the first place probably by smell and secondarily by sight and be thus liable to sexual excitement. Bloch does not consider that animals will, of their own motion, cohabit with women, but they may be easily trained to it.

Historical.—Bestiality has been practised from the dawn of history in all countries and in all ages. Chevers says that the Hindu mythology attributed this crime to some of their deities. Thus the father of Rishyasringar cohabited with a deer and his son had deer's horns. Kinsey mentions that in the Hittite Code it is decreed that 'if a man lies with a cow, the punishment is death. If a man lies with a hog or dog, he shall die. If a man lies with any other unidentified animal, the punishment is death.' These taboos were well established even in the Old Testament. Chevers mentions that according to the old Hindu and Muslim Laws, bestiality was a recognized and punishable offence. A section on adultery in Halstead's Hindu Law relates to the carnal conjunction of a man with any beast. Reference is made by Ward to other similar Hindu Laws. Thus, 'if any person has unnatural connexion with a cow, he must repeat the *Prajapatya* atonement (a fast commutable by a fine). Even according to Muslim Law, the kazi or the religious head could sentence a person to death for the offence of bestiality.

Psychology.—Bestiality is the result of aberration of instinct. Environmental factors, such as in the case described here, play a very important part in bringing about this aberration. The deviate seeks his secret satisfaction because he is prevented, by fear or distaste, from seeking a woman. According to Havelock Ellis, it is the vice of the clod-hopper, unattractive to women or inapt to court them. It is the vice of those who have no hope of finding a normal mate. He describes the case of a young man of 21, who had no attraction for women and would copulate with mares, without regard to time, place or spectators. 'Lack of opportunity for natural indulgence is a principal motive for this unnatural means of sexual

satisfaction.' In this case, it is brought about by sexual repression. All natural sexual feelings should have normal expression and outlet, and only when the normal outlet is not to be had, an abnormal outlet is sought. The role of 'imitation' is also important. That man is essentially a monkey, is a very apt saying in this context. He practises what he perceives and bestiality results in his curiosity to try what he has discovered. The case herein described is strikingly apt.

Some of those who seek bestio-sexuality may be mentally defective. Glaister mentions a case of bestiality by an insane person with a duck!

Kinsey remarks that 'contacts between the humans and animals of other species are largely confined to the rural portion of the male population.' While this is largely true and applicable to Indian conditions, a case of bestiality has occurred in the heart of a Metropolitan City, showing that where rural conditions prevail within a City, such offences may still occur.

Summary.—A case of bestiality by a boy with a she-goat is recorded. The definition, prevalence, medico-legal and other aspects have also been discussed.

Acknowledgements.—I am very grateful to Dr. I. Bhooshana Rao, M.D. Professor of Forensic Medicine, Osmania Medical College, Hyderabad and to Dr. B. S. Purushottam Rao, G.M.V.C., P.G. (Mukt.), Veterinary Surgeon, for the kind help and guidance given to me in writing this paper.

My grateful thanks are due to the Photographers of the City Police Photographic Department for the photographs published herein.

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THE MOON AND THE BIRTH-RATE

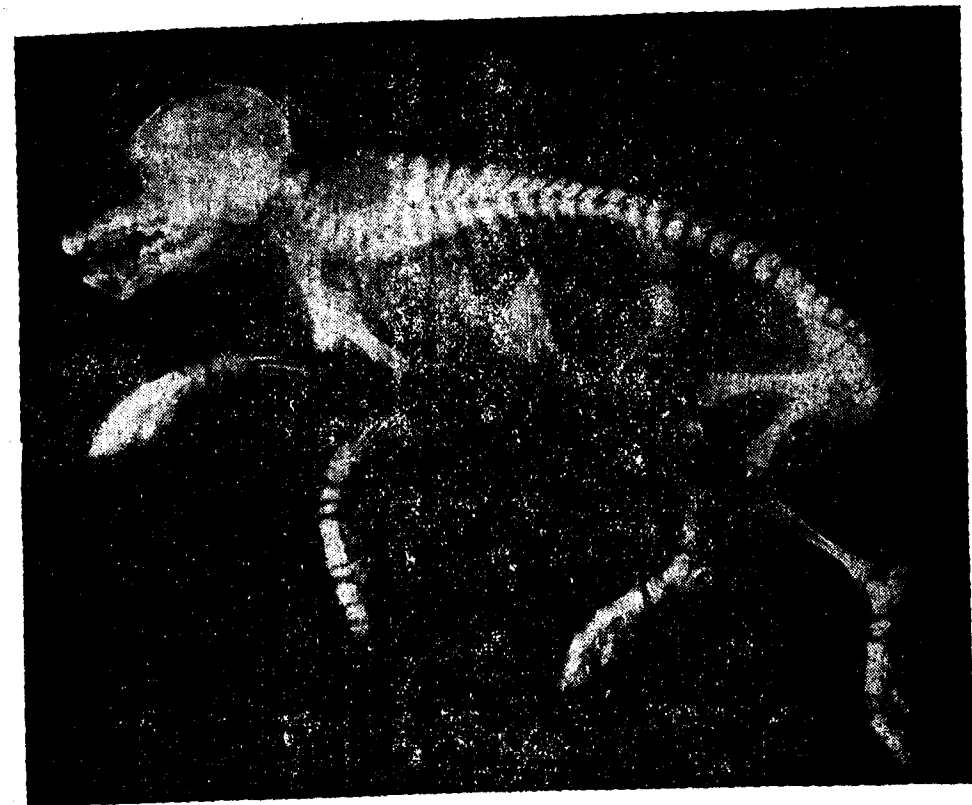
The moon does not influence the daily birth-rate despite old wives' tales to the contrary, reports Dr. Ernest T. Rippmann of the George F. Geisinger Memorial Hospital, Danville, Pa.

"No definite proof for or against this theory concerning a large number of deliveries had ever been obtained in this country," the author explained. In a statistical study of deliveries during the last 10 years at the Memorial Hospital—8,551 deliveries were made during this period—no reliable evidence of the moon's influence was found.

Dr. Rippmann compares the birth-rate to gambling in Monte Carlo. "There, as here, is no system of periodicity. It is high time to discard that superstition."—(*Am. Jour. Obst. and Gynaec.*, July 1957; *Schering Science Bulletin*, via *Current Medical Digest*).

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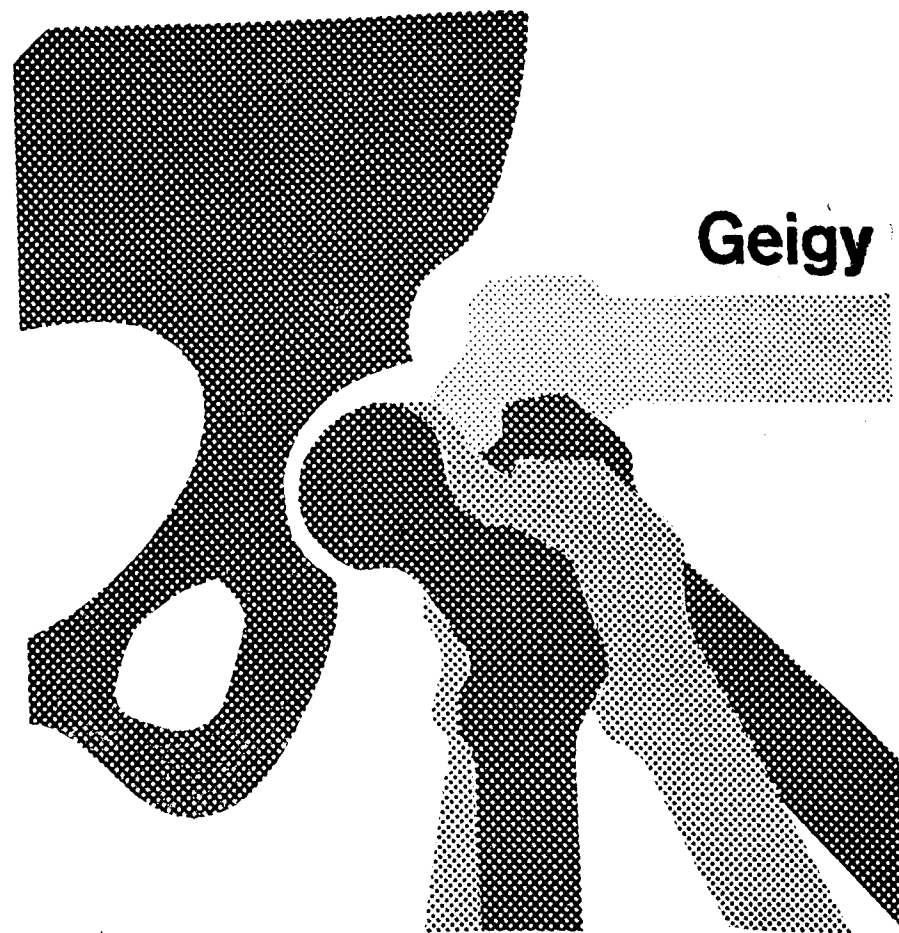
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PREPUTIAL CALCULI

A. N. K. MENON, M.B., B.S., D.M.R., D.M.R.D. (Lond.),
M.S. (Minnesota), F.C.C.P.,

AND

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THE condition is a rare one and most of the reported cases have been found in people who could command the amenities of modern civilization. It occurs from the earliest to the latest years of life but the majority of sufferers are from the advanced age-group. The illustrative cases so far reported in literature, number only seventy-six in men and only one case in a woman. One case not reported in the literature but communicated to us by Dr. R. V. Rajam (Madras) was in a man aged fifty.

The essential predisposing cause is marked phimosis which helps in the formation of calculus in the preputial sac by allowing the accumulation of smegma and urinary salts. The first result is inevitable when the retraction of the foreskin is impossible while the second has been observed only with extreme degrees of phimosis. In the latter cases the preputial orifice is so small, that the act of micturition invariably results in the accumulation of urine in the preputial sac. This may occur to such an extent that the prepuce gets distended like a rubber ball from which a fine, irregular spray of urine finds its way under tension.

This condition is extremely rare in civilized communities in which congenital phimosis is seldom allowed to persist and also in those communities where circumcision is performed as a routine measure, as soon as the child is born. The narrowing is not, however always congenital. Late in life the chronic inflammation present in the preputial sac, as a result of a mild degree of phimosis, adds further constriction to an already meagre orifice.

Preputial calculi in women are seen only rarely. They originate under the hooded prepuce of the clitoris and consist entirely of inspissated smegma, which consequently project beyond the margin of the prepuce. Because of its exposed position the mass becomes dry and hard. A single concretion thus presents a brownish solid object which obscures the clitoris.

Varieties of calculi.—There are three varieties of preputial calculi:—(1) Some resulting from inspissated smegma; (2) others from a mixture of smegma and urinary salts; and (3) those which consist entirely of urinary salts. The first are multiple greyish semi-solid bodies generally packed closely together in the coronal sulcus, to which they are generally adherent and cause a little bleeding when removed by gauze dissection.

[753]

The second variety usually consists of a nucleus of smegma on which urinary salts have got deposited. They depend on the regular accumulation of urine under the prepuce.

Calculi of the third variety do not originate in the preputial cavity at all, but are urinary calculi proper, which have formed in some part of the tract above and escaped from the external urinary meatus but have been too large to pass through the small orifice of the prepuce.

The cases of males reported in the literature all belong to group II, while the case of the female belongs to the first group.

Composition and size of urinary calculi.—Triple phosphate (ammonia-magnesium-phosphate) forms a large proportion of stones which originate *in situ*, on account of the septic condition of the sac. They are single or multiple. Sometimes there may be as many as 100 or even more. One case (Thomas, 1936) has been described in which 208 small calculi were present. Such calculi vary in size from small seed-like bodies to a single mass, two or three inches in diameter, which are found in extreme and exceptional cases.



1. Photograph showing calculus blocking orifice

ent for the past twenty days. The swelling at the tip of the penis was also a small one at the beginning and but had gradually assumed its present size in the course of three months.

Family history:—Revealed nothing particular. The patient was not married; he is a non-vegetarian, used to drink occasionally and he also smokes.

Previous illness:—He had a white discharge per urethra twenty years ago and had sore penis for which he was not treated at all, due to sex indulgences.

Case report.—The rarity of this condition compared to stones occurring at other sites in the urinary tract makes the present case-report particularly interesting.

Name:—Mr. N., male, cooly, aged 55, was referred to the X-ray department for X-ray of the penis, since he complained of difficulty in passing urine for the past one month associated with a hardness inside the prepuce for the past three months. There was discomfort experienced at the tip of the penis to start with, which was occasional in nature and infrequent but had become persist-

Physical examination.—*General:*—Patient was aged fifty-five, fairly healthy and of medium build. There was nothing abnormal in his cardiovascular, gastro-intestinal, respiratory and central nervous systems.

The urinary bladder was not distended. Locally there was a partial phimosis present. On stretching the foreskin of the penis on the glans, a greyish white hard substance was seen to block the orifice of the urethra more or less completely (see *Clinical photo* on p. 754).

A swelling was seen on the penis localized to the glans penis more prominent on the dorsal aspect. The penis was slightly oedematous. On palpation, the swelling was hard, slightly tender and two separate, hard pieces bony in consistency were felt adjacent to each other and imparted a crepitant sensation when the mass was palpated.

The patient took a long time in each act of micturition, as the urine came only in drops. Slight ballooning of the preputial sac was noted and the patient had to manipulate the portion where the swelling was present so as to improve the flow and help in the act of passing urine.

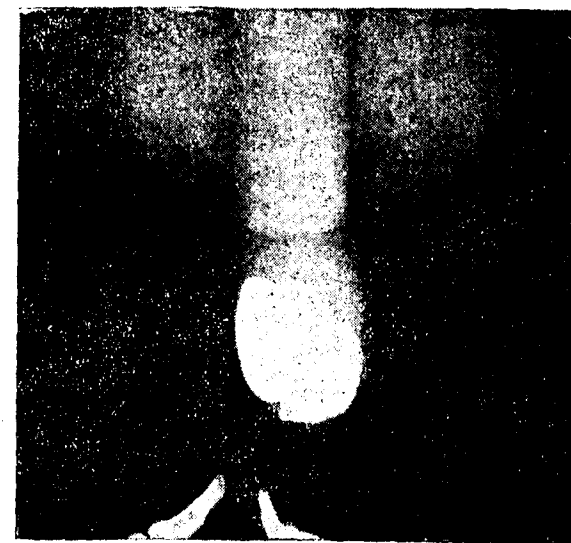
Investigations.—*Urine* was normal; *blood:*—Hb. was 80 per cent; R.B.C. 3.9 million per c.mm; and blood-urea; 29 mgm. per cent.

A plain X-ray of the K.U.B. tract did not reveal any radio-opaque calculus. A second X-ray showed the calculi *in situ* in the penis. Two laminated

irregularly oval radio-opaque calculi were seen in the preputial sac on either side of the urethral slit. The urethra was considerably narrowed possibly by pressure due to calculi.

Under general anaesthesia, an incision was made in the superior aspect of the glans penis and two stones were removed from the preputial sac.

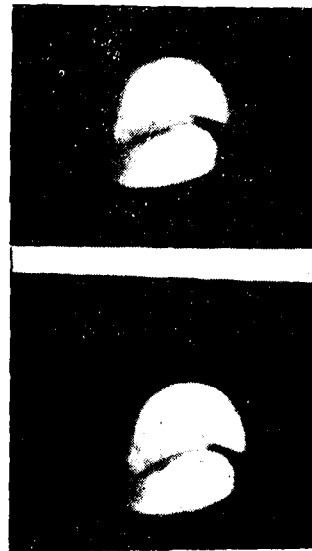
The third X-ray of the calculi after removal, showed the laminations very well with a central more-radio-opaque nucleus.



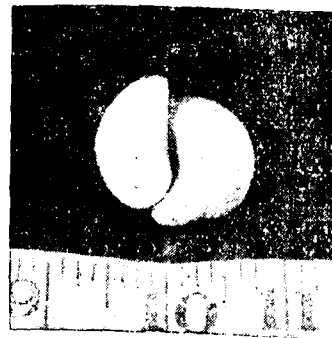
2. X-ray of penis showing two calculi.

Their total weight was 13.6 g. and their dimensions were:— $3.0 \times 3.0 \times 1.5$ cm. and $3.0 \times 2.5 \times 1.8$ cm. respectively.

The chemical composition of the stones was:—Nucleus, 5 mm. diameter, practically spherical, outside smooth, compact, very



3. X-ray of calculi after removal showing laminations with a central more radio-opaque nucleus.

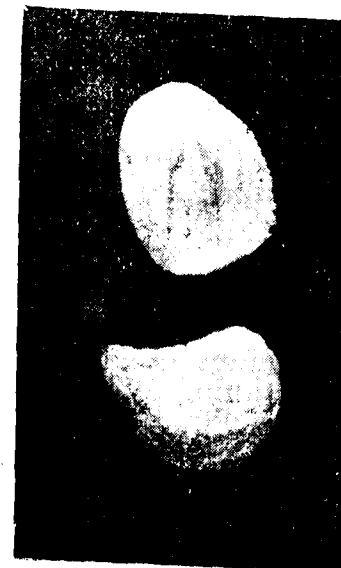


Calculi lying in preputial sac

hard; the rest of material around it was porous, crumbled easily and ground with difficulty. It contained calcium, magnesium, phosphate, carbonate, uric acid, cystine and a little chloride. Oxalate was totally absent. Phosphate, carbonate and uric acid were present in excess. By weight, it contained 54 percent, inorganic matter and 46 per cent organic. Uric acid accounted for a large percentage of the organic matter.

Discussion.—In this case the patient was unable to give a history pointing to the presence of congenital phimosis from birth. It is possible that the partial phimosis might have been produced by chronic inflammation of the preputial sac due to venereal disease which he admitted to have had in his earlier days.

The second point requiring elucidation is that the patient having all along been a bachelor, could have resorted to putting small pieces of pebble inside the preputial sac for sexual gratification and these could have formed the nuclei for the formation of calculi. The chemical composition of the calculi shows that these have been formed as a result of stasis, bacterial decomposition and settling down of the constituents of the urine.



5. Photograph showing calculi taken separately

The flat denial by the patient of having resorted to such methods, rules this suggestion out of court.

It is therefore, to be concluded that the partial phimosis acted as the predisposing factor in the formation of calculi in this case.

It is a matter for conjecture as to how the patient had been carrying on his existence, with two big calculi in his preputial sac!

Summary.—One more case of preputial calculi has been added to the literature, with emphasis on roentgenology.

Acknowledgement.—Our thanks are due to Dr. A. S. Ramakrishnan, M.B., M.S., Honorary Surgeon, Stanley Hospital, Madras, for referring this case to us for radiological examination. Our thanks are due to Dr. R. V. Rajam, M.B., B.S., M.S., F.R.C.P., F.R.S., Director and Professor of Venereal Diseases, Institute of Venereology, Government General Hospital, Madras, Dr. A. N. Ramanathan, M.B., B.S., M.Sc., Professor of Biochemistry, The Stanley Medical College and Dr. V. C. Anguli, M.B., B.S., M.D., Reader in Pathology, The Stanley Medical College, Madras, for their valuable help in preparing this report.

We are very grateful to Dr. S. Balasubramaniam, M.B., B.S., M.S., Dean of the Stanley Hospital, Madras for according permission to publish this paper.

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USE OF ENDOCRINES IN DERMATOLOGY

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F.A.I.M., F.D.S. (Lon.), Madurai

ENDOCRINOLOGY is a fascinating yet intriguing subject with a bewildering perplexity.

The leader of the endocrine orchestra, the pituitary is little used in dermatology but Prof. Ingram claims benefit in preventing postherpetic neuralgia by daily injections of the posterior pituitary extract. Andrews recommends the use of an anterior pituitary extract in cases of the severe type of cystic acne vulgaris. Adrenocorticotrophic hormone of the anterior pituitary will be considered along with cortisone and prednisolone groups.

Thyroid extract has been found useful in cases of xeroderma and parathyroid has been recommended by Dr. Sternberg in cases of papular urticaria.

Pancreas.—Pruritus of the vulvæ and of the glans penis has been found to occur in diabetes and can be eliminated by insulin.

Adrenal.—Removal of the adrenal tumour benefits hirsutism. Compounds F and E will be considered later with A.C.T.H.

Sex hormones.—The male hormone has been found useful in senile pruritus and Fox-Fordyce disease. The female sex hormones have been used in treating papillomatosis occurring in

menopausal women. Pruritus vulvæ not due to glycosuria or infection with *Trichomonas* etc., responds to oestrogens.

For women with alopecia occurring in menopause, oestrogen in the form of an ointment has been recommended.

Acne vulgaris responds to oestrogen therapy.

Cortico-steroids.—A.C.T.H., hydrocortisone, cortisone, and prednisolone have all been found useful in modern dermatological therapeutics. These drugs do not cure the diseases but are morbidistatic, that is they suppress the manifestations and symptoms of the illness. These drugs cannot be used with impunity because of their undesirable side-effects (*e.g.* A.C.T.H. and cortisone). Hence it is often a doctor's dilemma, "whether to use it or not." There can be no dilemma when diseases like disseminated lupus erythematosus and pemphigus are concerned. But in subacute and chronic cases which are never fatal but are highly incapacitating, such as severe atopic dermatitis including infantile eczema, discoid and lichenoid dermatitis of Sulzberger and Garbe and severe contact dermatitis, A.C.T.H. and cortisone should be used when other measures fail. These hormones should never be used as the sole measure but in combination with other modalities. Cortisone and A.C.T.H. convert the weeping inflamed and pruritic condition into one which will show improvement with other subsidiary therapies. The dosage schedule may be divided into three kinds:—(1) Initial dosage. (2) Maintenance dosage, and (3) Emergency dosage: temporary increase of the dose during acute exacerbations.

Many patients are reluctant to have the dose reduced, but the answer to them is "you may sleep better while you are taking such a dose of the hormone but I don't sleep well."

A.C.T.H. does not act directly but only through the adrenal cortex and hence it is useless to apply it locally.

Cortisone applied locally has been found to be ineffective and why it is so is a mystery; but it is possible that cortisone administration produces some substance which does act. Hydrocortisone (1%) locally has been found to benefit; only higher concentrations are required in some cases.

Prednisolone differs from hydrocortisone in the possession of a double band in the A ring. There is apparently no water or sodium retention. The daily dose is given in 4 divided doses after meals and at bed-time. The advent of this drug is really a great boon to dermatological practice. It has a potency five times that of cortisone. Prednisolone topically is being tried now, but in my opinion hydrocortisone used externally is superior to the former. Recent trends favour the use of prednisolone internally and hydrocortisone externally.

PLASTIC REPAIR OF STATIONARY LEUCODERMA ON THE FACE

(Case Report)

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LEUCODERMA on the face is a disfiguring though harmless condition. Its ætiology is not known. It is more noticeable in dark than in the fairer persons. Fortunately, with the present therapy using systemic and local meladinine, dermatologists are able to cure the majority of such cases. Only a small percentage resist the treatment and although the spread of the disease may be arrested, the leucodermic patch fails to regain the colour of the normal skin. The help of plastic surgery is then necessary as demonstrated by this case:—

A young Hindu girl had leucoderma on the whole of her left upper eyelid, partially on the medial side of the left eyebrow and a small irregular area over the eyebrows. She had taken adequate treatment from the dermatologist but the patch had failed to respond. There were no other patches on the face or elsewhere. Ultimately the dermatologist decided to get her treated by plastic surgery, adopting the following measures:—



Before treatment
Leucoderma upper eyelid
(Skin grafted)



After treatment (on 10th day—skin graft
taken: slight conjunctivitis will
clear up with treatment)

(1) The entire skin on the left upper eyelid was to be removed and replaced by a thin graft taken from the inner side of the arm (a full thickness graft from behind the ear is better for the lower eyelid but *not* for the highly mobile upper eyelid).

(2) The depigmented area at the eyebrow was not excised since it was small and the patient could easily touch up the eyebrows with a make-up.

(3) The small area above the eyebrow was to be excised and sutured after undermining the surrounding skin.

The operation was carried out under local anaesthesia with 100 mg. pethidine for preoperative sedation. The skin-graft was held in position by tie-over dressing. The graft took well by the eighth day.

Conclusion.—Failure of medical treatment in localized leucoderma could be treated by plastic reconstruction. Skin-grafting is best avoided if the leucodermic spot is small. If it is large, the best method is to use a local flap of skin for good colour-match. The last choice is to put a skin graft; the donor sites of choice being the post-auricular skin or skin from the neck; the medial side of the arm is the next best donor-area and also when a split-skin graft is necessary as in this case.

GOUT AND ALLERGY

The question of whether gout is an allergic disease or more particularly whether an attack of gout is due to hypersensitivity to an unknown allergen, is as yet unsolved. Lord Cohen, in his chapter on gout in Copeman's *Textbook of Rheumatic Diseases*, finds no evidence that the incidence of other manifestations of the allergic diathesis, such as asthma, urticaria, and angioneurotic oedema, occur with greater frequency in the gouty as compared with the non-gouty. The mechanism of an attack of gout is still unknown, and particularly its relationship to the hyperuricaemia which is present in this disease. Two arguments have been put forward in favour of an allergic element: first, the vascular phenomena which appear locally in an attack suggest increased permeability; secondly, the therapeutic results achieved by colchicine and phenylbutazone, which are not associated with any rapid alteration in the level of serum uric acid. The possibility has also been raised in an article by Villa, Robecchi, and Ballabio. They state that an allergic basis is suggested by the fact that there is difficulty in interpreting the disease on the basis of a single metabolic alteration; that there can be an acute attack with a normal uric acid level in the blood or alternatively a high uric acid level throughout life without gouty manifestations; and that acute gout and anaphylaxis can occur simultaneously. In fact, up to date there is little evidence that gout is an allergic disease, and no specific or non-specific allergens have been implicated by scientific means.—(*Br. Med. Jour.*, 24th May '58).

BLOOD TRANSFUSION

Blood has little or no margin of safety unless extreme care is used in the laboratory and in its administration. The mortality from haemolytic transfusion reactions exceeds that of some diseases of man. It is inadvisable to place any patient in danger, for the possible benefits that may be derived from one pint of blood. Blood transfusions should never be ordered routinely, but only after careful consideration has been given to the proper indications for the use of transfusions. Restraint in the use of blood transfusions will result in fewer transfusion accidents and diseases secondary to this procedure.—(Rowland H. Long: *The Physician and the Law*, Appleton-Century-Crofts, Inc., New York 1956, via *Current Medical Digest*, January 1958).

DETACHMENT OF THE RETINA

(A Case Report)

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Lecturer in Ophthalmology, M.G.M. Medical College, Indore (M.P.)

MR. M. L., a 60 year old man of Sagor was admitted in the M.Y. Hospital, Indore, on 17-2-'58, suffering from cataract in his right eye. On 19-2-'58 I extracted his cataract. After the operation the patient developed very violent vomiting and complained that he could not see anything with the operated eye. I examined carefully and found a big balloon extensive detachment of the retina in his right eye. By postural treatment and binocular bandage the detachment flattened out gradually and under full atropinization a hole was detected near the ova serrata at 7 o'clock meridian. It looked like a small anterior dialysis.

Technique of the operation.—On 31-3-'58 after proper anaesthesia and insertion of speculum, a suture thread was passed, at 7 o'clock near the limbus, in the right eye of the patient, to direct the eyeball in the desired direction. The conjunctiva and tenon's capsule were incised 8 mm. from the limbus and parallel to it in the lower and outer quadrant. The hole was localized by the ophthalmoscope. This was aided by depressing the sclera at the ora serrata in the 7 o'clock meridian. The spot of light of the ophthalmoscope focusing the retinal tear was marked on the sclera. It was found to be in the 7 o'clock meridian 9 mm. from the limbus.

The inferior and lateral rectus muscles of the eye under operation were retracted by hooks and surface diathermy application was given at 80 milliamperes current for 5 seconds each, just posterior, and to the side of the point marked on the sclera, corresponding to the retinal hole. A faint greyish brown scar was produced in the sclera. After each application of diathermy the result in the retina was noted by direct ophthalmoscopy on the operation table and was noted as a dull grey reaction. Care was taken to see that the field of operation remained absolutely dry while the cornea remained moistened. These surface diathermy applications were made in the form of an arc, the two ends of which terminated at the ora serrata and enclosed the tear in the retina between this arc of diathermy applications and the ora which was 8 mm. from the limbus.

The evacuation of subretinal fluid was effected by means of one penetrating diathermy puncture with a 1.5 mm. long diathermy needle at 50 milliamperes current for 2 seconds only. One puncture was found sufficient and serous subretinal fluid seeped out.

I examined the fundus again and noted that the retina had gone back to its place and there was a good grey reaction proximal to the retinal hole at the ora. There was no charring of the tissues.

I stitched back the conjunctiva, instilled penicillin and atropine and bandaged both the eyes. Both eyes were kept bandaged for 17 days and the patient left the hospital on 21-4-'58 completely cured of his detachment. The vision in the operated eye after correction with glasses on the day of discharge came up to 6/18 right eye.

Discussion.—This case illustrates a few important points:—

(1) That any intraocular operation like cataract may influence the incidence of retinal detachment and a minor trauma, like vomiting may cause detachment. There may be some retraction of vitreous after cataract extraction which favours detachment.

(2) Complete rest with binocular bandage and postural treatment flattens the detachment remarkably and improves the prognosis.

(3) Recent cases of retinal detachment, if operated early, have a good prognosis as regards vision.

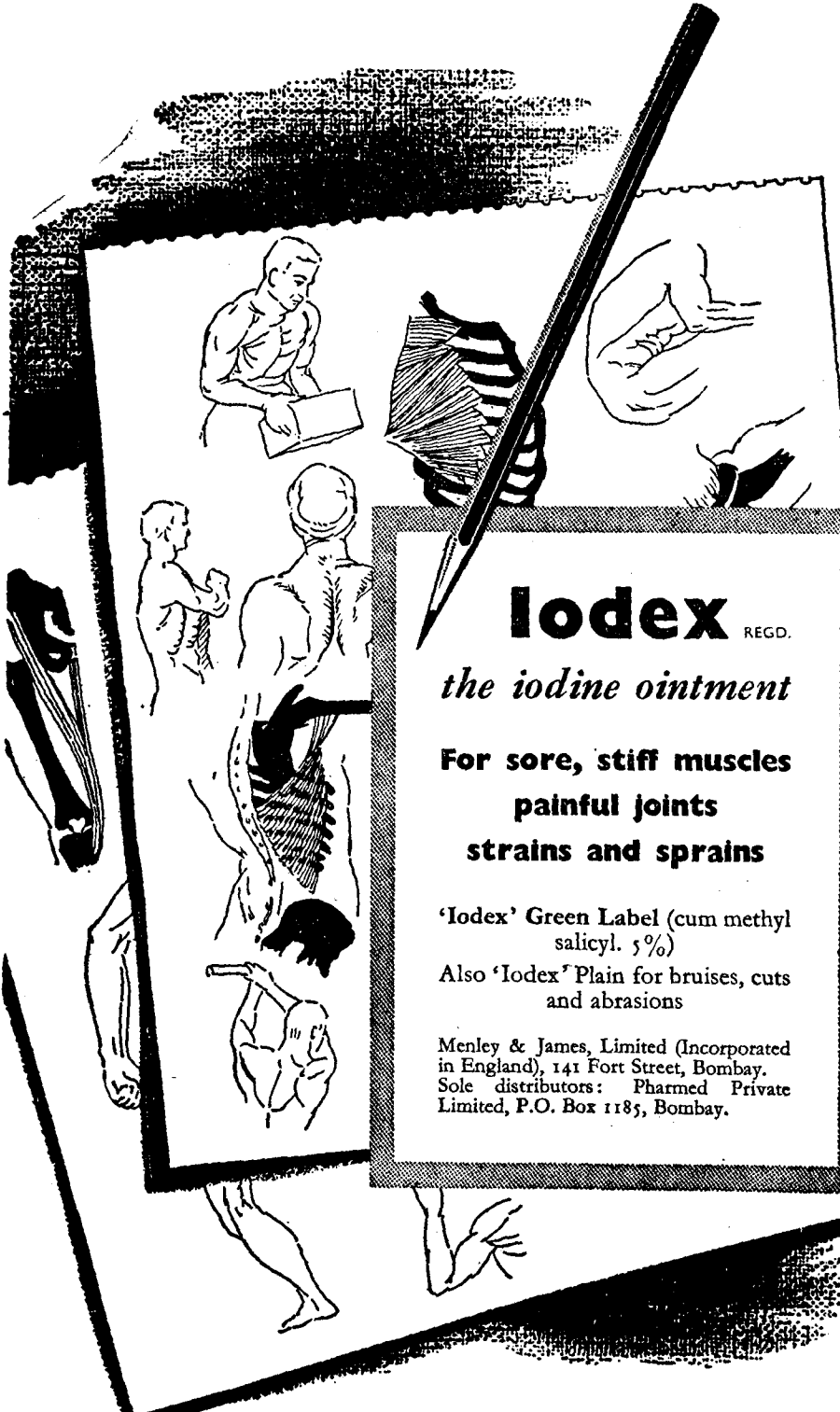
(4) Proper localization of the hole is very important and a minimum area of sclera, choroid and retina should be subjected to diathermy but the hole must be sealed properly.

Conclusion.—A case of the detachment of the retina after cataract extraction is reported which was operated successfully. A few important points of interest are brought out.

I am grateful to our Principal Dr. B. C. Bose, Superintendent, Dr. R. Bhattacharya and Professor B.K. Dhir, for facilities afforded and for according permission to utilize the hospital records in preparing this report.

OLD AGE IS A CONTINUATION OF LIFE

Problems of aging, while they have their own peculiarities, nevertheless cannot be isolated from the broad sweep of the human life span. Old age is not a separate part of existence, a postscript, as it were. In truth, it is a continuation which is now being added, thanks to the dividends of scientific discovery. This business of living cannot be divided into hard and fast compartments. Rather we need to catch the rhythm of human existence, a progression as it were, from one period of growth and development extending, as time passes, into the next broader phase of experience. Timing and progression need be kept in mind, for there appears to be a schedule of changes and experiences, each an occasion of the period. From birth, infancy and childhood, on through the entire life-span, there are potentials, physiological, psychological, and social, which attend to each period. Patterns of progressive training and behaviour are fairly well charted for the early years and on, until middle age is upon us. Basic needs for the first half of life are moderately well known. The later years period, thus far, has been uncharted territory.—(Edward L. Bortz, *South African Medical Journal*, December 21, 1957 via *Current Medical Digest*).



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Editorials

CONFERENCE OF THE ASSOCIATION OF SURGEONS OF INDIA

(Plea for Reorganization of Post-graduate Education)

INAUGURATING the two-day Annual Regional Meeting of the Orthopaedic Section of the Association of the Surgeons of India at the Madras Medical College on the 30th of August 1958, Shri Dr. U. KRISHNA RAU, the Speaker of the State Assembly told the numerous doctor specialists from various parts of the country attending this important session that early diagnosis has enabled a better understanding and a more rational interpretation of the clinical features as well as of the investigation of several diseases. He rightly stressed the need for greater cooperation between the general practitioner and the specialist, both in the interests of the patient and also in order to render the specialist's work easy. Dr. KRISHNA RAU said orthopaedic surgery had now grown and this branch specially concerned itself with the preservation and restoration of the functions of the skeletal system, its articulations and associated structures. It is often said that nowadays a person has to be a doctor first, a surgeon next and an orthopaedic surgeon finally.

Early diagnosis of diseases has now become an important factor in the management of many orthopaedic conditions. Advancement in the knowledge of the causation of diseases and its pathology has been a great contributory cause to the success of orthopaedic surgery. "Bone-grafting, arthroplasty, congenital dislocation of the hip, recurrent dislocation of shoulder, skeletal tuberculosis, cerebral palsy, acute anterior poliomyelitis, sciatica, low back pain are among examples of diseases whose treatment has become more successful. Humanity, in general,

should pay a handsome tribute to this branch of medicine." He was inclined to feel that physiotherapy and rehabilitation should claim more of their attention. He also suggested that orthopædic surgeons should train people to make orthopædic appliances, and should plan early for starting institutions to train people in the manufacture of artificial limbs.

Dr. CHERIAN, speaking from the Chair, paid tributes to Dr. M. G. KINI who first organized the special orthopædic department in the General Hospital. He was a pioneer among orthopædic surgeons in India and he was ably succeeded by Dr. V. R. THAYUMANASWAMI who is now the Director of Medical Services in the State.

To develop a speciality, proper equipment and assistance are necessary. But not a single special department in the State hospitals had the full complement of personnel that was necessary. Dr. CHERIAN wished to see a number of experimental surgery units established in teaching hospitals. We agree with him that unless we have a large number of doctor-specialists in the various branches of medicine who were happy, with their emoluments and prospects, medical progress would be greatly retarded.

In a forthright attack on what are apparently considered serious impediments to ordered medical progress, Dr. B.N. SINHA, of Lucknow, President of the Orthopædic Section of the Association said, "if quackery still exists, I would place the blame squarely on the members of the profession. What have they done so far to end this, by contacting the people and explaining the need for scientific medicine?"

Dr. SINHA also said propaganda was being carried on from the pulpits and platforms for an integrated system of medicine. "How could they have an integrated system when there was only one system—the scientific system of medicine? If people practised the integrated system of medicine, well and good but *let them do research in the subjects* and others—including myself will be grateful for the advancement of medicine in this regard."

Answering the point raised in certain quarters that people practising the integrated system can help to supply the much-needed medical relief to rural folk, Dr. SINHA very pertinently asked: "How can you have a sub-standard for the villager, and very nice, good doctors for towns? It is imperative in my opinion that every doctor should have the minimum M.B., B.S., qualification as a basic degree. After acquiring this minimum austerity requirement they may begin to specialize."

The points stressed at this meeting were: the need for better emoluments for doctor-specialists, the necessity for stern measures to end quackery, and a general reorientation of medi-

cal education to afford proper medical relief to the people. In the urban areas there is already considerable overcrowding in all hospitals. With the rapid progress of industrialization and necessary transport facilities for the same, accidents, particularly those requiring orthopædic attention, are becoming increasingly common and more frequent. Even more common, perhaps, are the results of domestic accidents, fights and quarrels. And many cases reach the hospitals after they have been dangerously mishandled by ignorant bone-setters in the country side. Though, as far as accommodation is available (and often in excess of the sanctioned bed-strength) all general hospitals have to and do admit cases of bone injury or maladjustment; only two or three in this State have special orthopædic departments and even these are not fully equipped and staffed. We are glad that the 'Association of Surgeons' has lost no opportunity to represent to Governments and the public the need for well-organized orthopædic sections, with sub-sections devoted to bone tuberculosis and other diseases, infantile paralysis, fractures and deformities, and similar causes of sufferings. We share the view of Dr. SINHA that facilities to deal with all such cases are required more especially in teaching institutions. The aim, however, should be to have a first class orthopædic unit at least in every District Hospital.

The organization that Dr. SINHA contemplates obviously includes a "follow-through" clinic, convalescent homes, facilities for orthopædic nursing, and rehabilitation units to make atrophied limbs active, and train the maimed or crippled for suitable occupations so that they may be useful, self-dependent, self-respecting citizens. Though his demands savour of a tall order he claims and so do we that an orthopædic department, or the nucleus of one, *can* be formed by minor adjustments in the existing hospital organization. Emphasis has to be laid also on the urgent need for the establishment of centres for the supply of artificial limbs in all important cities.

We wish to invite pointed attention to the urgent necessity for the training of more orthopædist, to which both Dr. CHERIAN and Dr. SINHA referred in their addresses. There are only about 50 such specialists now in the whole of India as against 600 in the much smaller country of England. Lucknow is the only University in India at present where post-graduate training in orthopædics has been provided. More Universities should institute post-graduate courses as, only then, the mad rush for foreign degrees by our young medical men can be stopped. It seems to us that there is much truth in what Dr. SINHA said at a civic reception given to him in Madras.

"Our Indian Universities and teachers must reorganize post-graduate medical education to suit the needs of the country and its people."

"Chiding young medicos for their "mad rush" for medical degrees from foreign countries, Dr. SINHA said, it was his considered opinion that only those, mature enough, with some years of service and knowledge of the conditions of hospitals here should go abroad.

"I would not like to be misunderstood, and I am not against people taking degrees in other countries. But I can vouchsafe for the fact that a number of young men, after their return from studies abroad, have to be *psychologically rehabilitated*, before they are fitted to service conditions in this country. I have heard it said that the hospitals in this country are a little backward, that some operation, which is being performed in New York or in other similar foreign centres, was not possible here! But I say the standards of treatment, do not depend on one single operation or a particular technique. It is not the various theories or philosophies that mattered. It is the man on the spot, it is the human approach, and the doctor's attitude and devotion that would serve well the medical profession and the people."

In the history of India, we know that there have always been men of that stature, and there were many in the profession, whose approach accorded with the teaching and philosophy of social service.

In Independent India, we are not merely medical officers, but medical social workers. Perhaps no other section of our society is so greatly and eminently fitted for social work as the members of the medical profession; and orthopaedic surgeons have always wished to be recognized by the public primarily as social workers.

We wholeheartedly support the plea for the reorganization of post-graduate medical education in all its varied branches and aspects to suit the needs of progressive Independent India, and to fall in a line with the progress made in other advanced countries of the world.

THE ROLE OF THE NURSING PROFESSION

(Golden Jubilee of the Trained Nurses' Association of India, Madras Branch)

INAUGURATING the VIII Annual Conference and the Golden Jubilee of the Trained Nurses' Association of India (Madras Branch) at the Nurses' Home near the Madras General Hospital, Shri BISHNURAM MEDHI, Governor of Madras, referred to the nobility and greatness of the profession and said, "I hold the view that service by itself gives the greatest pleasure to the person who performs it, and it is more so in the case of those who voluntarily make every effort in order to be of help to a neighbour or other person in removing hardship, in alleviating distress, in reducing suffering, and in lessening pain." Nurses have innumerable opportunities to combine sacrifice with service, and are always actuated by a high loyal sense of devotion to duty. The motto of their association gave, in just two little words "*I SERVE*," the entire aims and objects of their Association.

The Trained Nurses Association of India founded in 1908, nine years after the establishment of the Indian Nursing Council, intended to bring about a uniform standard of training in the country. In improving the training, and in raising the status of nurses, the Association has played an active part. It has functioned as a centre for the collection and dissemination of information on nursing, organized training and refresher courses, granted aid from its funds, or secured scholarships from Government and other organizations for advanced courses, and assisted nurses and midwives in need.

Nurses in all centres of medical relief have won the gratitude and affection of the public by their hard toil, high sense of duty, and kindness to those placed in their care. Nursing in its modern sense is really the outcome of the glorious work of Florence Nightingale who played a very important part in bringing succour and solace, care and comfort to the sick and the convalescent during the Crimean War. Successive generations have since striven to emulate and follow the superb example set by her and later by her equally illustrious followers. In India during the last quarter of the nineteenth century, the pioneers who started the Countess of Dufferin Fund (an Association formed for Supplying Medical Aid by Women to the Women of India) played a great role in the introduction of modern nursing in India and the foundation laid by them have certainly endured and a great edifice has been built. The developments in this direction were influenced continuously by the advances made in medical science. With the advent of independence, the Government, both at the Centre and in the States, have launched various schemes for the promotion of public welfare in all departments of human endeavour. The medical as well as the nursing profession has a very responsible role to play in making health schemes a success.

It was very gratifying to note that in stressing the need to provide medical relief in the rural areas, Mr. MEDHI told the nurses "your duties will take you to very many remote parts in rural India, where people are in need of help and guidance in the field of health. I do hope that the best traditions under which you have been brought up, the experience which you have gained, the education and training that have been imparted to you, and the noble objectives which you have placed before yourselves will help you to play a very important role in the promotion of public health and welfare, in the urban as well as rural areas in our State."

The State's Director of Medical Services Dr. V. R. THAYUMANASWAMI said that the nursing profession was an important link of the medical profession. Referring to the shortage of nurses, he said that there has been a steady, if still inadequate, improvement in this direction. For in 1948, there were only

620 nurses and the number increased to 923 in 1953 and now there were 1420 nurses in the State. This is certainly a noteworthy feature. The Director's statement that there was still a shortage of about 200 nurses only which will be soon made up as the training schools will turn out about 200 nurses a year, apparently related to the sanctioned strength in the State hospitals. But nearly all State hospitals are having patients considerably in excess of the sanctioned strength and the medical and nursing staff are terribly over-worked. We have frequently referred to this overcrowding in State hospitals and stressed the necessity for improving the conditions obtaining in them both from the point of view of patients' comforts and that of the need for affording some relief to the greatly overworked nurses and other personnel who have been cheerfully carrying out their duties under great strain without grumbling or protesting in public.

Miss MATHEWS of the Ranipet Scudder Memorial Hospital who presided over the Conference said that the membership of their Association was now about 5000 and that 11 of the 14 States in India had branches of the Association and some States had also District Units. Recognizing the importance of this great and useful profession seven States have already appointed Nursing Superintendents to help the Directors of their Medical Services. It was her fervent hope that the Madras Government will also soon make a similar appointment. We are quite in sympathy with the proposals made by Miss MATHEWS (1) urging the restriction of the hours of work for nurses to 48 hours with a weekly 'off' as they were doing 56 hours' work on day duty and 59 hours' work on night duty and (2) asking for an improvement in their service conditions.

It is our considered opinion that one of the objects in training nurses is to prepare them to take an effective part in promoting and ensuring good health among people. In the Five Year Programmes being worked out in this country, a great deal of attention is directed to improving the standard of national health. Their training also should be geared to meet this new emphasis on health through prevention and health education. Therefore any basic course in training nurses should include domiciliary nursing and midwifery, and instruction and practice in health teaching. This is not possible at present because of the heavy demand for curative nursing service. The result is that trained nurses are not in a position to do their part in the health promotion programme of the nation.

For the time being the only way out seems to us to be to organize short post-graduate courses in health education and public health. Simultaneously, we must investigate the possibility of having such courses in the undergraduate curriculum and strive for their inclusion at this level.

REHABILITATION OF THE BLIND

(Greater popular effort and more Governmental aid needed)

MR. ROBERT BARNETT, Executive Director of the American Foundation for the Blind, New York—a "clearing house" of information about blindness and measures to educate and rehabilitate blind persons—who paid a visit to Madras at the end of August 1958, in the course of his world tour, stated that greater assistance, both Governmental and from private sources is necessary if the huge blind population of India, (which on a modest reckoning must be well over two million), is to be adequately rehabilitated. After visiting various institutions for the blind and also industrial organizations where only a few of these unfortunates have been profitably employed, Mr. BARNETT, himself a blind man, related his impressions of the work done by these handicapped persons, and said that the "techniques adopted in India for vocational and trade-training of the blind compared favourably with those in the West." He, however, felt that the number of persons rehabilitated was very small. The organization—founded by Miss Helen Keller and supported by private philanthropy—did not directly help blind individuals, but collected information about the blind throughout the world and supplied to those who wanted it. With the collaboration of a sister organization for the overseas blind, the Foundation was providing technical equipment to countries outside the U.S.A.

Out of the two million blind persons in India today, at least 200,000 are likely to be of school age. Yet only about two thousand children are in schools for the blind. One reason for this is the popular belief that the blind are helpless and that they are to be pitied rather than helped to earn their own living. Presumably the majority of the blind, when they are not beggars, are simply maintained in idleness by their relatives. This can indeed be very demoralizing. The following account of the heroic and successful efforts of a blind Indian student to rehabilitate himself, recently published in one of our local distinguished contemporaries, affords stimulating reading:—

"A young Indian born into a well-to-do family Mr. Ved Mehta has recently described in his autobiography the despair that overtakes the blind youth who cannot get the education which his brothers and sisters enjoy. In his particular case, he took the courageous step of going to America and learning methods of self-help which finally enabled him to study at Oxford University."

But how about those poor handicapped persons, who cannot afford to venture out on such enterprises?; and these are legion. Madras State is said to be exerting itself more in the cause of the blind than most other States, but it has to be noted it is only a small beginning we have made and the main problem requires to be tackled on a State-wide scale.

There are now only two important institutions in this State for the education of the blind:—(1) the State-aided private school for the blind at Palamcottah which the Madras State's Chief Minister Sri KAMARAJ visited in July last, to learn that only its financial position was precarious and required at least Rs. 10,000 more to make both ends meet, and (2) the Government School for the Blind at Poonamallee. These schools give their blind inmates, training in handicrafts, besides teaching them to read and write and count. Blind persons, if properly trained are known all over the world to make excellent factory workers. The two existing institutions in Madras can become models on which more institutions can be based and started. It may be pointed out here that blindness is not necessarily always an absolute organic defect and that in several cases blind persons can and do benefit by proper treatment. It is common knowledge that in our country one of the major causes for blindness is the failure to devote proper attention to the eyes of babies and small children by ignorant parents. As the new welfare projects of the Second Five-Year Plan and the net-work of Maternity and Child Welfare Centres gradually extend their scope and activities to all villages in the country, we may expect to record a definite decline in the incidence of preventable blindness, say, in 10 or 15 years from now. In the meanwhile, the rehabilitation of those already without sight is very urgent, and an all-out effort to provide facilities to achieve this object must be made. Private philanthropy and Governmental co-operation and help can alone do this job efficiently and well and may we not hope these will be readily forthcoming?

THE LIMITED USE OF CHLORPROMAZINE IN BRONCHIAL ASTHMA

A group of 7 asthmatic patients, all of whom had highly reversible disease and a strongly allergic family history and who were currently being treated for pollen and dust sensitivity, and 7 normal controls were given the drug intravenously and studied with closed-system spirometry. The pulse rate increased in 6 of the normal and 3 of the asthmatic patients after chlorpromazine injection, remained unchanged in 3 asthmatics, and fell in one asthmatic and one normal patient. Blood pressure levels fell in 5 of the 7 asthmatics, remaining unchanged in the other 2, and the respiratory rate increased and remained unchanged in a like number of asthmatic patients. The tidal volume decreased in 6 of 7 patients in both groups. No significant differences were noted in either group either in total vital capacity or electrocardiographic recordings. Sedation was the only consistent effect, and that in itself is not compatible with asthmatic relief, as it merely sublimates the signs and symptoms that would otherwise alert the physician.—(A.L. Michelson and R.C. Lowell, *Am. J. M. Sc.*, 234: 31-34, July, 1957 (Philadelphia), via *J.A.M.A.*, 165: 12, November 23, 1957).

pecial Feature :

NEWSLETTER FROM THE UNITED STATES

More than 13,000 physicians crowded into San Francisco recently for the annual meeting of the American Medical Association. In addition to numerous medical and pharmaceutical displays, many important papers of current medical interest were presented. A California anaesthesiologist, M. J. Marmer, told about a successful *open-heart operation performed on a hypnotized patient*. An unusual aspect of the operation was the fact that the patient was asked to open her eyes and move her head while the heart-lung machine was taking over the work of her heart. She was then put back to sleep and the operation was completed successfully. She was discharged from the hospital 20 days later in good condition.....Also speaking at the San Francisco meeting was a dermatologist from Los Angeles, R. B. Saperstein, who described a *new treatment for acne*. Washing three times daily with an abrasive paste makes the skin dry, turn red, and scale. This procedure opens up the oil follicles, eliminating blackheads and pimples. Use of this abrasive paste by young people enables them to outgrow acne with little or no scarring. Most patients note considerable improvement after six weeks of treatment.....Discoid lupus erythematosus is a difficult disease to treat but good results with use of Camoquin are reported by P. H. Magnin in the July 19th issue of *La Prensa medica argentina* (44: 2277, 1957). Twenty-four patients with discoid lupus erythematosus of 3 to 20 years' duration were given an initial daily dose of 0.40 gm. of Camoquin. Treatment lasted from 15 to 150 days. Eleven patients had had no previous treatment; of these 7 were cured and 2 experienced 70 to 80 per cent improvement. Of the 13 patients who had previously received treatment with some other medication, 9 experienced total remission of symptoms and 1 had partial remission. A follow-up of 15 days to five months after cessation of therapy indicated that only 1 patient experienced a relapse. Camoquin is therefore, considered effective in treating discoid lupus erythematosus and, in some cases, response to treatment is dramatic.....H. Lillywhite, reporting in the June 14 issue of *The Journal of the American Medical Association* (167: 850, 1958) urges family doctors to be alert to the possibility of *speech deviations in children*. Children between the ages of one and six usually follow a consistent pattern of speech development. Some deviations which may indicate trouble are: (1) if a child is not talking by the time he is two years old, (2) if, at the age of three, a child's speech is largely unintelligible, (3) if sounds are more than a year late in appearing when compared to the average developmental sequence, (4) if a child omits numerous initial consonants after three years of age, (5) if a child replaces easy sounds for difficult ones after five years of age, (6) if he does not use sentences by three years of age, (7) if he consistently drops word-endings after the age of five, and (8) if a child, at any age, is embarrassed and disturbed by his speech.....An apparatus has been devised which makes it possible to *X-ray the heart in three dimensions*. This technique permits study of the heart chamber's motion and blood volume. The new equipment is installed in the Stanford University Hospital in California. The electronic intensifiers brighten X-ray pictures 100 times and cast them onto 11-inch screens. The intensity of the light makes it possible to reduce the number of X-rays needed. Two separate images are produced so that the resulting film strips can be studied separately or projected together.....Anticholinergics have, in the past, had drawbacks for two reasons: side effects and lack of specific therapeutic activity in the area of difficulty. Piptal, a postganglionic, parasympathetic depressant eliminates both of these difficulties. J. Pomeranze and R. J. Gadek report in the January issue of *The American Practitioner and Digest of Treatment* (8: 73, 1957) that when Piptal was administered to 16

patients with uncomplicated peptic ulcers, symptoms disappeared and there was no evidence of toxicity. Piptal has little effect on bowel function so that it can depress gastric secretions without inhibiting function of the entire gastrointestinal tract. Piptal proved effective not only during the course of treatment, but for a two-week period after discontinuation of therapy. The effective therapeutic dose is well below that which would produce undesirable side effects. It is always hard for medical students to find time during their four-year curriculum to do independent research. This problem is being solved by W. L. Hard at the University of South Dakota School of Medicine who started a new programme that provides medical students with \$ 200.00 per month for individual research projects. These projects are conducted during the summer months under the supervision of a faculty adviser. The programme has many advantages that are appreciated by both the faculty and the student body. First, medical students are able to experience first-hand how medical discoveries are made. Secondly, they are learning while they experiment, and thirdly, the use of students for research during the summer enables more research to be accomplished. A report from the University of California Medical School, Los Angeles on research by psychiatrist, N.Q. Brill and co-workers suggests that anaesthetics may be used just as effectively for treating mental patients as electro-shock therapy. The study included 97 mental patients, 67 of whom were schizophrenics; the remaining were patients with depressions. The patients were arbitrarily assigned to one of the following five treatment groups: electro-shock therapy alone, a combination of electro-shock therapy and a drug; electro-shock therapy and pentothal; pentothal alone; nitrous oxide alone. All patients who received drugs alone were also given simulated electro-shock treatment. All patients experienced marked improvement regardless of the therapy employed. The authors conclude that possibly the value of therapy lies in repeated induction of unconsciousness rather than in electrical stimulation or production of a convulsion.

DIET AND CORONARY THROMBOSIS

Much has been written about the role of dietary factors in causing coronary thrombosis. In particular, many believe that the disease is related to the amount of dietary fat, or of a particular sort of fat. In support of these beliefs, we are presented with evidence of an epidemiological nature. We are told, for example, that the higher the average fat-consumption in a country, the higher the mortality due to coronary thrombosis (coronary mortality). Or we are told that the rise in the number of coronary deaths in this country was accompanied by a rise in the consumption of hydrogenated fats.

From time to time, however, it becomes evident that some of the epidemiological data do not fit these simple hypotheses. For example, in one investigation the chance of suffering from coronary disease was found to be twice as high in general practitioners as in other doctors and it is difficult to see how this can be explained solely on the basis of differences in diet.

As more and more of these awkward facts turn up, one begins to have the uneasy feeling that both the proponents and opponents of a dietary hypothesis are quoting only those data which support their view. —(John Yudkin, *The Lancet*, July 27, 1957, via *Current Medical Digest*, January 1958).

Amoebiasis

"For years a 25-year-old woman had complained of undefined pain in the left half of her thorax, sometimes radiating into the left hypochondrium. No abdominal pain, retching or diarrhoea occurred. All clinical examinations were negative. X-ray examination of the stomach, thorax and spine, and an electro-cardiogram gave no pathological findings. Diagnosis: 'Intercostal neuralgia,' but treatment for this was unsuccessful. Later a stool examination revealed amoebae, and the patient was treated with various quinoline compounds and antibiotics without avail. After 40 Resotren tablets the pain had disappeared, but the stool culture remained positive. After 20 more tablets amœbae were no longer found. During the 10-month follow-up the pain in the left half of the thorax and the hypochondrium did not recur."

—J. Kellermann (*Clin. Expts.* 2/58, p. 47).

The above case note well illustrates the view that amœbiasis is essentially a systemic disease and should be treated with a broad-spectrum amœbicide such as Resotren. Resotren destroys not only the pathogenic trophozoites but also the minute forms and cysts and will also eradicate any extra-intestinal infection—amœbic hepatitis or pulmonitis, if any. It is a special feature of Resotren that it thoroughly flushes the intestinal tract by increased motions. Thus toxins and metabolites which, as a rule, retard the specific action of a drug are eliminated and a radical cure achieved.

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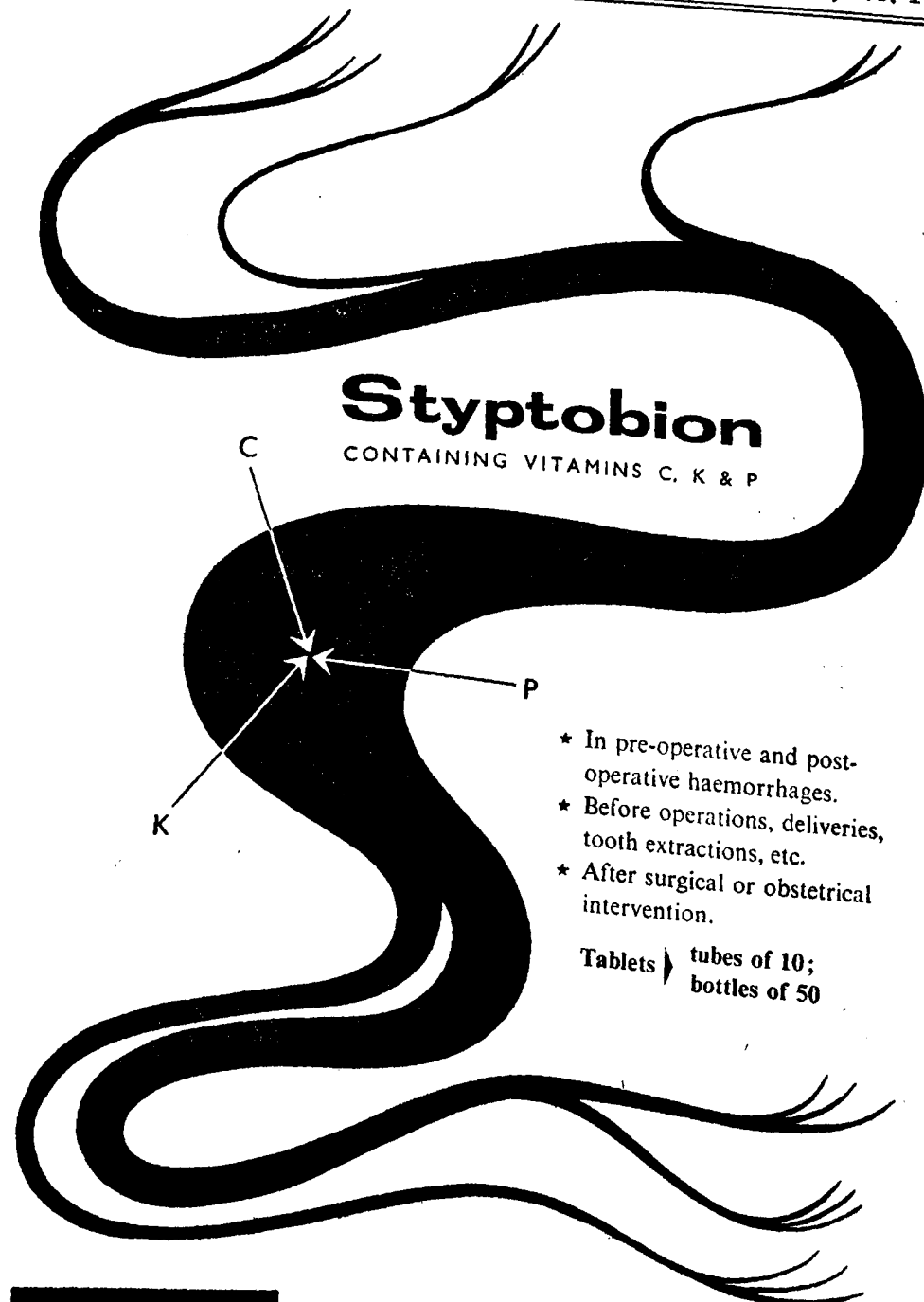
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GLEANINGS FROM THE MEDICAL PRESS

MEDICINE & THERAPEUTICS

Chemotherapy for gastro-enteritis.—(*Br. Med. Jour.*, 14, June 1958).

Acute gastroenteritis with diarrhoea as the dominant symptom may be an infection of the alimentary canal with specific organisms, such as salmonella or those of the dysentery group. Sometimes it is due to the ingestion of staphylococcal toxin. Occasionally, and especially in children, unsuitable articles of diet may be responsible. It must, however, be admitted that in the majority of the cases no specific cause is found and in these the attack is usually brief and self-limiting. In such attacks symptomatic treatment with classical remedies, such as kaolin and morphine mixture, N.F., or chalk and opium mixture, N.F., is sufficient. Kaolin alone in large doses—for example, 50 g. three hourly—is often more effective. Pectin can be given in a proprietary preparation or more cheaply and simply as grated raw apple, but its efficacy has never been convincingly proved. The sulphonamides and antibiotics are indicated only when the diarrhoea is due to microorganisms, but since this is rarely known when treatment is begun it is common practice to administer them in all cases of diarrhoea. Soluble and insoluble sulphonamides, streptomycin, neomycin, and the tetracyclines are effective against shigella infections. The soluble sulphonamides are preferable to the insoluble, and the tetracyclines have been shown in controlled trials to be more effective in Sonne dysentery than any of the other preparations. Each case must be judged on its merits. If it seems probable that the gastro-enteritis is due to bacterial infection a sample of the stools should be sent to the bacteriologist, and tetracycline may then be given. In most cases, however, little time will be lost if simpler non-specific remedies are used, and, in general, these should be preferred. Dehydration is a constant feature of severe diarrhoea, and replacement of

water and electrolytes is important, especially in children.

Autoclaving spinal anaesthetics.—(*B.M.J.*, 14-6-'58).

Repeated autoclaving of spinal anaesthetic ampoules should be avoided. Some of the drugs, in particular amethocaine, cinchocaine, and procaine, undergo gradual decomposition with loss of potency, though without apparent toxicity. Solutions containing glucose gradually become brown owing to caramelization. There is also a possibility that repeated autoclaving may cause minute cracks in the ampoule—in itself a hazard to sterility. Repeated autoclaving can be avoided if each ampoule is kept in a sealed container. A single autoclaving process is all that is then necessary.

Treating duodenal ulcer.—(*G.P.*, June, 1958).

In treating patients with duodenal ulcer, many physicians think first of restrictions that must be imposed. They emphasize the elimination of certain things from the diet and the administration of drugs, particularly anticholinergic agents, that are intended to reduce gastric hyperfunction. Not so Dr. Stewart Wolf. He believes that not only are such restrictions futile, but they may be actually harmful.

In addressing the American Academy of General Practice in Dallas, last March, Dr. Wolf made it clear that he agrees that gastric hyperfunction is the basic disorder in the pathogenesis of duodenal ulcer. However, his own research as well as the writings of other authorities fail to support the notion that dietary restrictions are helpful in reducing gastric secretion. He pointed out that coffee and alcohol—items often eliminated from the ulcer diet—are relatively weak stimulators of gastric secretion by comparison with histamine, insulin and reserpine. As for the thought that some substances are irritating to the gastric

or duodenal mucous membrane, Dr. Wolf is unconvinced. Indeed, he has shown that the gastrointestinal mucous membrane remains remarkably unaffected by the local application of supposed irritants. Thus, such agents as mustard, acids, or alkalis provoke irritation in the skin of the forearm much more readily than in the gastric mucosa. He concludes that "Any food that's safe to put on your forearm is safe for your stomach."

As for inhibition of gastric hyperfunction by anticholinergic drugs, he points out the effects are too general. They knock out too many other functions when given in doses that might curtail gastric secretion. To Dr. Wolf, prescription of anticholinergic compounds in the treatment of duodenal ulcer is similar to treating writer's cramp with curare.

As a part of his study of the problems of chronic duodenal ulcer, Dr. Wolf interrogated some 50 patients about their medical experiences. Most of them told the same story. When a diagnosis of duodenal ulcer had originally been made, a physician had prescribed a strict diet and the patient soon felt a lot better. Sooner or later he began to disregard the dietary restrictions and to eat pretty much what he wanted. Then came a time when the ulcer pain returned. Another visit to the physician reinvoled the restricted diet. Again there was improvement, and again a slipping away from the diet. Finally, after several recurrences of his duodenal ulcer, the patient began to feel guilty because he had neglected his doctor's instructions. Accordingly, there was reluctance to return to the physician. The patient made out as best, he could treating himself. As Dr. Wolf emphasized, the main order of treatment to the patient's mind was "Thou shalt not!" He reacted to the attempt at prohibition in a very human way. He did as he pleased, and he stayed out of sight of his prohibitor, partly because of feelings of guilt.

Dr. Wolf believes that some part of the problem of duodenal ulcer can be solved if physicians will emphasize

the positive. So, orders for restriction of the diet are not issued, and the patient is told only "Thou shalt eat frequently." Under these circumstances, he is not likely to feel guilty in the eyes of the physician. He is more inclined to stick with his doctor. And this is important because it enables the physician to stand by supportively when the patient encounters those life situations that provoke in him feelings of resentment and hostility—feelings that are most responsible, directly, drastically, and lastingly, for gastric hypersecretion and duodenal irritation.

Thyroid hormone.—(*A.M.A., Archives of Internal Medicine*, February 1957), (via *J.A.M.A.*, 8-3-'58).

When one reviews the facts that are currently known concerning the changes produced in the circulation of the human being by hyperthyroidism and hypothyroidism, one reaches a somewhat surprising hypothesis. Triggered by change in body temperature, produced by the increase or decrease in metabolism, the homeostatic neuro-circulatory mechanism provides for change of blood flow to the skin by vasodilation or constriction. From the ensuing change in peripheral resistance, cardiac output is reflexly increased or diminished, with tachycardia and/or increase in stroke output, or the opposite, while mean arterial blood pressure is preserved in its normal range. The fact that the myocardium shares in the general metabolic effect of the thyroid hormone contributes no doubt to the maintenance of the new level of circulatory performance. Various viscera appear to function at different metabolic levels. Their varying oxygen needs seem to be satisfied in some cases by increased blood flow and in others by increased oxygen withdrawal from a more or less constant blood supply. Different organs and tissues respond to excess of thyroid hormone with various levels of metabolic rate. This probably reflects similar degrees of varying utilization of the hormone under normal conditions. Confronted by the difficulties

of adapting to imbalance of this particular hormone, the circulatory system reacts in ways that are in some cases beneficial and in others detrimental.—(*H. M. Thomas Jr., M.D., Effect of Thyroid Hormones on Circulation*).

Dextran and prolonged bleeding time.—(*J.A.M.A.*, 166: 4, 1958).

The effect of dextran infusions upon the bleeding time was studied in 22 women and 235 men. In 42% of the subjects the infusion of one litre of 6% solution of dextran measurably prolonged the bleeding time; in 8% of the subjects the bleeding time after infusion exceeded 30 minutes. The effect was maximal from three to nine hours after the infusion and was not accounted for by any demonstrable dilution or reduction of fibrinogen or thrombocytes. Comparison of dextran preparations showed that those of highest molecular weight had the most marked effect in prolonging the bleeding time. The use of dextrans as plasma expanders carries a risk of serious failure of the haemostatic mechanism and is contraindicated in patients who are known to have a tendency to bleed or who have received large transfusions of whole blood.

The maximum incidence did not occur immediately after the infusion but three to nine hours later. The effect cannot be explained on the basis of simple increase in circulating blood volume, thrombocytopenia, or fibrinogenopenia. The mode of action is not clear, but the phenomenon appears to be due to interference with platelet activity.

Smoking and death rates—report on forty-four months of follow-up of 187,783 men.—(*J.A.M.A.*, 8-3-1958).

Total death rates in relation to smoking habits were studied in 187,783 men who were traced for an average of 44 months. Particular attention has been given to possible sources of bias in the data. Inclusion of each man in the series was determined on the basis of a questionnaire; death certificates were obtained on every one

of the 11,870 men recorded as dead at the end of the 44-month period of this study. A total of 4,406 deaths occurred among men with a history of regular cigarette smoking only. This was an excess of 1,783 over the number that would have occurred had their age-specific death rate been the same as far men who never smoked. The mortality ratios were higher in the groups who smoked the largest number of packs per day, and cigarette smoking appeared to have far more effect on the death rate than did pipe or cigar smoking.

OBSTETRICS & GYNÆCOLOGY

A simple test for determining ovulation time.—(Condensed from *J.A.M.A.*, 166: 10, March 1958).

It was reported in 1955 that during the mid-portion of the menstrual cycle a decrease in the concentration of reducing substances is present in cervical secretions. Brinberg *et al* of Brooklyn thought that this may result from a hydrolytic splitting of glycogen and glucose may be present in cervical secretions as a result of this hydrolysis. Preliminary studies were started and daily tests made on cervical secretions from normal women to determine the presence or absence of glucose, using a strip of Tes-tape in the cervical canal and observing it for any colour change. Approximately 2 days prior to the theoretical day of ovulation, a faint colour change occurred on the strip, which became of maximal intensity on the theoretical day of ovulation, then faded and disappeared in 2 to 3 days. They showed that it was glucose that is present in cervical secretions at the time of ovulation. A test was devised which has given a high percentage of success.

Technique:—Ten days after the first day of the patient's last menstrual period, the cervix is visualized through a vaginal speculum. Using tissue forceps a strip of Tes-tape is inserted approximately 1 cm. into the cervical canal. It is removed after 30 seconds, placed on a clean dry glass surface

and observed for any change in colour. This procedure is repeated every day until a deep colour change is noted... Approximately 2 days prior to the day of ovulation a pale green colour will develop on the strip, in from 3 to 30 minutes after it is taken out from the cervical canal. A deep green colour appears immediately on insertion, on the day of ovulation. Specially prepared glucose reagent applicator sticks have recently been used for the tests. The applicator is tipped with cotton impregnated with the Tes-tape reagents and inserted for 5 minutes and colour changes recorded.

Twenty-seven consecutive patients (all candidates for artificial insemination) were studied for ovulation time by this method; 20 became pregnant after first insemination. Conception occurred in 3 of the remaining 7 on subsequent attempts with the use of the cervical glucose test as a guide in determining ovulation time.

Carcinoma of the uterine cervix. Its diagnosis and management.—(*Jour. Internat. Coll. Surgn.*, January 1958).

The pathologist's role in the detection of preclinical carcinoma of the uterine cervix requires three avenues of endeavour. The first is the detection in smear preparations of abnormal cells from clinically benign or invisible lesions on the cervix. The second is the orientation and processing of properly obtained and adequate material for biopsy and the insuring of complete surgical removal of the grossly invisible lesion. The third is a critical and continuous evaluation of the typical cellular changes that are the basis for a fairly reproducible diagnosis of carcinoma *in situ* or of early infiltrating carcinoma of the cervix.

The detection of preclinical carcinoma of the uterine cervix requires close co-operation between the gynaecologist, the surgeon and the pathologist. In the Mayo Clinic the detection rate of preclinical carcinoma of the cervix in the 66,511 primary

cervical smears screened was 7.8 per 1,000 patients. The false "suspicious" rate was approximately 2.4 per 1,000 women screened. In nearly two-thirds of this latter group the biopsy material revealed the source of the atypical cells mirrored in the smear. The rate of incidence of carcinoma *in situ* detected in repeated cervical smears screened.

Extreme care is needed in obtaining biopsy material from the squamocolumnar juncture and in preserving the surface epithelium at the time of biopsy. The pathologist's role in preferential handling of such material and the use of fresh-frozen sections as a diagnostic method have been stressed. It is advantageous to make the pathologist responsible for both the cytologic diagnosis and the tissue diagnosis. Infiltrating carcinoma was encountered in slightly over 10 per cent of preclinical cancers of the cervix detected by cervical smear at the Mayo Clinic.

Congenital galactosemia.—(*J.A.M.A.*, 8-3-1958).

Hitherto the inability of some infants to metabolize galactose normally has not been discovered until the signs and symptoms of galactosemia have been produced by the ingestion of milk. The clinical syndrome, which includes mental deficiency, could be avoided if the condition were diagnosed at birth before milk is given. A galactose-tolerance test may be dangerous for a child with congenital galactosemia. Schwarz and co-workers (*Lancet*, 1:24, 1958) devised a method of detecting congenital galactosemia just after birth by using cord blood. Their method is based on the observation that incubation of galactosemic erythrocytes with galactose leads to accumulation of galactose-1-phosphate in the cells. The amount of the latter that accumulates in normal erythrocytes in such circumstances is much smaller. The erythrocytes are incubated first with galactose and then with glucose. The free sugar is then washed out with saline solution, and after removal of protein

the total organic and inorganic phosphates are precipitated as barium salts, and the galactose and glucose-1-phosphates selectively hydrolyzed to free galactose and glucose. These sugars are separated chromatographically, and the amount of galactose is estimated by comparison with known quantities of the latter chromatographed simultaneously. The test can be made in the absence of any clinical signs or symptoms of congenital galactosemia and without a galactose-tolerance test. It would not be possible to carry out the test on all newborn infants, but it could be used in patients with a family history suggestive of the disease, or for confirming the diagnosis in untreated or suspected cases. The infant can then be given a galactose-free diet if necessary, and saved from the damaging effect of dietary galactose. Galactose can enter the foetal tissues in utero, even though it cannot be detected in the mother's blood.

Vaginal hysterectomy.—(*J. A. M. A.*, Mar. 8, 1958).

Dr. Rosalvo C. Cavalcanti (*Revista de gynaecologia e d'obstetricia*, Vol. 100: 1957) analyzed 40 cases of vaginal hysterectomy for uterine prolapse. In 32 there was third degree; in 6, second degree; and in 2, first degree prolapse. The age of the patients varied between 29 and 74 years (average 49.5). Sixteen patients had had more than five pregnancies. The only death in the series occurred suddenly 10 days after the operation and was caused by cerebral hæmorrhage.

Foetal asphyxia associated with umbilical cord five times around the neck.—(*Br. Med. Jour.*, 14-6-1958).

Coiling of the umbilical cord around the foetal neck is a common complication of labour, said to occur about once in every five deliveries (*Brews and Bender*, 1955). Foetal asphyxia, deflexion attitudes, and malpresentations are sequelæ of this complication.

To find the cord coiled five times around the neck is relatively rare. A

35-year-old woman, married three years, attended the London University College Obstetric Hospital in her first pregnancy in 1956. She was a healthy woman with no past history of disease, found to be rhesus-positive and W.R.-negative. The expected date of delivery was calculated to be July 7, 1957. Pregnancy proceeded normally, uncomplicated by hypertension or pre-eclampsia.

Labour began spontaneously at the 39th week with contractions. On her admission at 9 p.m. on June 30 the foetal head was in the upper pelvic cavity, and the foetal heart was regular at 132 beats a minute. The cervix was not taken up and was only 2 cm. dilated. Contractions were weak, but became strong and regular during the next two hours. Intramuscular pethidine, 125 mg., was given at 11 p.m. At 3-30 a.m., on July 1, the membranes ruptured spontaneously and copious amounts of thick green meconium escaped. The foetal heart remained steady and regular. Vaginal examination showed that the head was now deeply engaged, with the sagittal suture transverse; no cord was felt.

The cervix was fully dilated by 7-30 a.m.: the foetal heart now varied between 100 and 180 beats a minute. Preparations were made for forceps delivery, and the patient was premedicated with atropine, 1/100 gr. (0.65 mg.). General anaesthesia was induced with cyclopropane and maintained with gas, oxygen, and ether. Vaginal examination showed the foetal head at the level of the ischial spines in the left occipito-lateral position. After a right medio-lateral episiotomy, Kielland's forceps were applied by the wandering method and the foetal head was rotated and delivered. The foetal cord, devoid of pulsation, was coiled tightly five times around the neck and had to be severed before delivery of the trunk. Ergometrine, 0.5 mg., had been given intravenously with the crowning of the head, and the placenta and membranes were delivered intact by the Brandt-Andrews technique, with a total blood

loss of 255 cc. The puerperium was uneventful.

The placenta weighed 740 g. and was normal. The cord was eccentrically implanted and its total length was 131 cm. (52½ in.).

The infant, a male, was limp and shocked at birth; although he gasped immediately, regular respirations were not established for 10 minutes, and the first cry was at 20 minutes. Resuscitation consisted in the clearing of the air passages, which contained thick green meconium, and the administration of gastric oxygen, and 0.25 mg. of nalorphine hydrobromide (n-allylmorphine; "lethidrone") into the umbilical vein. The birth weight was 6 lb. 6 oz. (2,890 g.).

The baby was transferred to the sick-baby nursery and treated with intramuscular penicillin, 100,000 units, and streptomycin, 60 mg., twice daily for five days as well as one injection of "vikastab," 1 mg. Two hours after delivery he was found to be restless and irritable, with a shrill cry, marked opisthotonos, and exaggerated limb tone. He was sedated with intramuscular phenobarbitone, 1/8 gr. (8 mg.) four-hourly for two days. Respirations were shallow for the first 24 hours, but regular after that.

Feeding was started with expressed breast milk on the second day. By the fifth day the baby was established on the breast and transferred to the mother's ward. He was discharged with the mother, in good condition, fully breast-fed, on the 10th day, when the weight had risen to 6 lb. 14 oz. (3,120 g.). At the follow-up clinic six weeks later the baby was in satisfactory condition and weighed 7 lb. 14 oz. (3,570 g.), being totally breast-fed.

Maternal complications in the delivery of infants with congenital malformations: A study of 212 cases.—(*South M.J.*, 50: 1321-1329, Nov. 1957, via *J. of American Medical Association*).

Burns and McCain analysed the pregnancies and deliveries of 212 women

whose infants had congenital defects and weighed 1,000 g. or more. Spontaneous abortions had occurred before the current pregnancy in 43 women (20.3%). Polyhydramnios occurred during 25 pregnancies, and only 3 infants survived when this was present; 11 infants were stillborn, and 11 died in the neonatal period. Polyhydramnios was present in 10 of the 14 women in whom the congenital abnormality of the foetus was diagnosed before the onset of labour. Breech-presentation occurred in 30 deliveries. The increased incidence of breech deliveries was caused in part by the high incidence of prematurity and in part by the type of congenital malformation itself. Operative procedures were employed in the delivery of 91 (42.9%) of the infants. The breech deliveries and the deliveries of 8 hydrocephalic infants by craniotomy were associated with the malformations of the infants. The remaining operative deliveries did not appear to be associated with the abnormalities of the infants but had the usual obstetric reasons as the indications for undertaking them.

Eighty-eight infants (41.5%) did not survive delivery. Seventy-three infants (34.4%) delivered of the 212 mothers were premature, and 49 of the 73 died. The deaths of these infants were caused by the type of malformation and by the poorer operative risk for corrective surgery in premature infants. The 82 women with infants having anomalies of the central nervous system, abnormalities of the bladder or kidneys, or abnormalities of the cardiovascular system had a high incidence of abortion in previous pregnancies. The incidences of polyhydramnios, prematurity, and breech-presentations were high in the 82 infants delivered of these women, and the infant mortality rate also was high. In the 50 infants with skeletal defects and the 18 infants with malformations of the urethra, there was association with relatively little abnormality of the past obstetric history of the mother or complication of the pregnancy with the defective infant. The infant mortality rate was rela-

tively low. In the 62 infants with abnormalities of the gastrointestinal tract or of the respiratory system, or with multiple anomalies, there was association with more complications of the pregnancies of their mothers than the preceding group but with fewer complications than the first group. The emotional reaction of the patient after the delivery of a congenitally deformed infant constitutes a real responsibility for treatment by the attending physician. Congenital anomalies in the undelivered infant thus have serious implications. Though diagnosis may often be impossible before delivery, this is not necessarily so if the obstetrician will be on the lookout for such a complication. Having made a diagnosis, he may anticipate the potential problems and complications of labour.

SURGERY

Management of the colostomy patient.—(*J. Int. Coll. of Surgeons*, p. 76, Jan. 1958).

Preparation for a patient who will be left with a colostomy requires..... forethought. A way to handle the problem is to inform the patient before the operation that he may be left with an abdominal anus, that this may be a temporary opening (the impression is left that it is usual to keep the colostomy open for six months), and that at the end of such period the decision will be made as to whether normal bowel continuity can be restored. When the patient is in the early days of his colostomy, which are rugged days for him, he bears them better with the thought that this is a temporary expedient. He is taught how to use the irrigating apparatus; he finds that he can go out into society with safety, and as the end of the six months approaches he becomes less and less insistent in his questions about restoration... Man is so adaptable that caring for a colostomy becomes just another routine for him; in time he will carry on his activities with little consciousness of an infirmity.

Intravenous pethidine in minor surgical procedures.—(*B.M.J.*, 14-6-'58).

During a period of nearly three years Dr. Markby, F.R.C.S., has given intravenous pethidine as a preliminary to various minor painful surgical procedures in over four hundred cases. Its use appears to be very valuable in sigmoidoscopies, in urethral instrumentation, and as an adjunct in operations performed under local analgesia. Its action appears to be rapid and effective and singularly free from any side-effects. In fact, it has proved to be a safe and effective method of treatment.

A preliminary injection of 50 to 75 mg. of pethidine is given intravenously before the operation is started. This facilitates muscular relaxation and acts synergistically with the local analgesic, and appears to prolong its action. After the preliminary infiltration it is rare that any additional local analgesic is required. It has proved to be especially suitable for strangulated hernias, for suprapubic cystostomies, and for the repair of perforated ulcers in frail and "bad risk" cases.

Lobar emphysema.—(*J.A.M.A.*, 25th Jan. 1958).

A newborn infant or young child with severe respiratory difficulty and cyanosis, unrelated to acute infection or other known event, may be suffering uncommon respiratory lesion, obstructive emphysema of a single lobe. The site and nature of the lung lesion is indicated by the finding of a hyperaerated unilateral area or entire hemithorax or physical examination and the finding on chest X-rays of a highly radiolucent lobe or entire lung field which still contains lung markings. An abnormality of the lobar bronchus is thought to be the important factor in production of this syndrome.

Treatment will depend on the severity of symptoms and the threat to life, but almost all patients with lobar emphysema have such impressive symptomatology that intervention is urgent and imperative. *Exploratory*

thoracotomy is recommended for the patient with lobar emphysema when his initial severe symptoms do not respond quickly and well to administration of oxygen and to tracheobronchial aspiration by catheter and bronchoscope and when the radiological findings remain unchanged.

Simple laminectomy for spondylolisthesis without spinal fusion.—(*J. Internat. Coll. Surg.*, January '58).

Persons with spondylolisthesis usually have spondylolysis associated with forward slipping of the body of the vertebra. This spondylolysis refers to the isthmus, or portion of the posterior element of the vertebra that attaches to the vertebral pedicle. In other words, slipping forward of the body of the vertebra is usually accompanied by a fibrous isthmus or pars interarticularis.

The symptoms of spondylolisthesis are low back pain, often combined with unilateral or bilateral sciatica. Instability of the fifth lumbar vertebra, with progressive forward slipping, is considered the cause of the symptoms and signs encountered in these patients. Rupture of the intervertebral disc is frequently blamed for sciatica when this symptom is prominent. The physical signs are usually radicular and involve the fifth lumbar and first sacral roots unilaterally or bilaterally. Occasionally there is hyperæsthesia involving the lateral aspect of the calf and foot. The ankle jerk may be absent. Atrophy of the calf is not common but may occur.

Thirty-six patients with various degrees of spondylolisthesis have undergone removal of the neural arch and spine, with dissection of both pedicles of the fifth lumbar vertebra. The results are encouraging and indicate that fusion is rarely necessary. Patients with pre-spondylolisthesis only are likewise relieved of back pain and sciatica by this technique. Since the results of simple laminectomy are usually good, fusion should be reserved for those patients who are not relieved by simple laminectomy. In such

fusion has been done in 2 patients, with satisfactory results.

Tumours of the renal pelvis and ureter.—(*J. Internat. Coll. Surg.*, 29: 1, Jan. '58).

Observations on 19 patients with pelvic tumours and 16 patients with ureteral tumours are made. Of the pelvic tumours, 78.9% occurred in the male, 21% in the female; 75% of the ureteral tumours occurred in the male and 25% in the female. Of the pelvic tumours, 36.8% were multiple, as were 68.7% of the ureteral tumours; 65% had gross hematuria as a presenting complaint, lumbar or abdominal pain being less common. Of the patients with ureteral tumour, 37.5% actually had tumour protruding from the ureteral orifice.

The majority of patients with carcinoma of the renal pelvis or ureter present significant and usually diagnostic symptoms and clinical signs. The diagnosis must be based upon a careful evaluation of the patient's complaints and the cystoscopic and roentgenographic data. It should be especially considered in the case of a patient with a history of hæmaturia and/or lumbar pain, the presence of a filling defect on the urogram or retrograde pyelo-ureterogram, decreased unilateral renal function, hydronephrosis, hydroureter and cystoscopically, the presence of unilateral hæmaturia, vesical tumour, and/or a dilated or congested ureteral orifice.

Nephro-ureterectomy with excision of a cuff of the bladder is recommended for all patients. Conservative operation is indicated only for those patients in whose cases the preservation of renal function is imperative.

There is a definite need for more careful pathologic study and prolonged followup investigations.

The careful work of McDonald and his collaborators, and Whitlock and his associates demonstrated the value of careful histologic evaluation in relation to the ultimate prognosis.

Carcinoma of the lung.—(*J.A.M.A.*, 8th March, 1958).

bronchus, (2) lobar bronchus, (3) mid-lung, and (4) subpleural carcinoma has been based upon a study of 489 patients, of whom 291 were subjected to thoracotomy. Main bronchus cancer occurred in 24% of the operated patients. Bronchoscopy was invariably positive and resection was carried out in 69% of the patients in whom an exploration was done. Lobar bronchus carcinoma was seen in 54% of the operated group. Bronchoscopy revealed the tumour in about one-third of the cases and there was a resectability of 61%. Mid-lung cancer was present in 11% of the operated cases. Bronchoscopy failed to show the tumour. In 94% of the operated cases resection was possible. Sub-pleural carcinoma occurred in 11% of the patients in the operated group and was beyond the limits of bronchoscopic visibility. Only 42% of the operated cases were resectable.

There was no significant difference in operative mortality of the various groups. The survival following operation during the first year was approximately 82% for the first three groups but only 52% for the patients with subpleural cancer. The most important single factor in the decision for exploratory thoracotomy in those patients in whom the bronchoscopy was negative was the proper interpretation of the chest roentgenogram which takes into consideration the patient's signs and symptoms. Preservation of the chest film is of vital importance to the patient. By comparing this film with subsequent ones, slight changes indicative of early bronchogenic carcinoma may be detected. Greater effort must be made by all physicians who take chest roentgenograms to see that all of these films are preserved, microfilmed, or given to the patient.

Aortic stenosis.—(*General Practitioner*, June 1958).

Now that it is possible to correct aortic valve stenosis surgically, there is a high premium on diagnosis of that type of valve deformity. Fortunately, even before the development of

surgical methods, the studies of Kumpe and Bean had greatly clarified the diagnostic criteria. Those authors re-evaluated the so-called classic signs of aortic stenosis in the light of pathologic data. The classic signs included a loud, harsh aortic systolic murmur transmitted to the neck (with accompanying thrill); a diminished or absent second aortic sound; and a narrow pulse pressure (with corresponding change in the character of the pulse). The re-evaluation showed that the classic signs did not cover anything like all cases of aortic stenosis. This led to a relaxation of criteria, so that the diagnosis might be made in cases in which not all classical signs were present or in which there were atypical features.

The wide acceptance of less rigid criteria has made clinicians readier to record a diagnosis of aortic stenosis. Yet, under these circumstances, they have had the experience not infrequently of making that diagnosis clinically and of then being disappointed by autopsy findings that disclose something less than significant aortic valve stenosis—usually coronary artery disease attended by minimal thickening and deformity of the aortic valve. This type of experience indicates two things: (1) that there is still uncertainty about the minimal criteria for diagnosis of aortic stenosis; and (2) that corrective surgery is not to be lightly recommended.

In all this, the clinician faces a dilemma. He has the strongest motive for bringing all possible cases to the surgeon for treatment and is therefore willing to use less rigid criteria for the diagnosis of aortic stenosis. On the other hand, he recognizes in this policy the risk that some patients may thereby be subjected to surgical exploration unnecessarily.

The exposition of that dilemma and a solution for it are described by Hancock and his colleagues in the *New England Journal of Medicine* for February 13, 1958. Five cases were encountered in which there was strong reason to consider a diagnosis of aortic valve stenosis. True, there were atypical features but nothing actually

to show that aortic stenosis was not present. To resolve their doubts, the authors obtained a quantitative assessment by means of catheterization of the left side of the heart. In their words, "Aortic stenosis of any physiologic significance regularly necessitates a higher systolic pressure in the left ventricle than in the aorta for the maintenance of an adequate cardiac output though the narrowed aortic-valve orifice. Simultaneous determination of the systolic pressure in the left ventricle and systemic artery, and of the cardiac output, allows a calculation of the size of the aortic-valve orifice." In the five cases in question, significant aortic stenosis was thereby ruled out, with the demonstration of no measurable systolic pressure gradient across the aortic valve.

The experience by Hancock's group and by other students of the problem suggests that catheterization of the left side of the heart is an important prelude to the decision for surgical treatment in cases in which a diagnosis of aortic stenosis has been made clinically. Also, with more extensive use of catheterization, it may well be that the minimal criteria for a clinical diagnosis will become clearly defined.

Pollicization of the index finger.—(*J. Internat. Coll. Surg.*, January '58).

The problem of the amputated thumb is magnified, especially when the major hand is concerned. Certainly, in the young man or woman who earns a living with his or her hands, this disability is one of great concern. Without question, there should be offered to this person the possibility of substituting, by surgical means, the index finger for the lost thumb.

"Loss of a thumb is a crippling injury, only equalled perhaps by the loss of all the fingers of a hand."

As Littler has so well emphasized, "the three elements pertinent to useful function are: (1) sensation, (2) stability and (3) independence of motion." This end result can be accomplished by a non-stage transfer of a segment of the index finger.

In our opinion, transposition of the index finger is superior to simple deepening of the first metacarpal cleft, because the reconstructed thumb more closely resembles its amputated predecessor in length, function, action, usefulness and stability.

The cosmetic loss involved in the narrowing of the palm from pollicization is far outweighed by the gain of a new opposable thumb that allows the hand to function as a unit. The procedure described provides for a strong grip with powerful opposition, and the new thumb has normal sensation. The interdigital cleft must be deepened between the index and long fingers to provide for easy opposition.

As in the case here reported, a pollicized digit will be cyanotic for several hours after the operation before it regains its usual colour.

From a technical aspect, the most important step in the procedure is preservation of the neurovascular bundle of the transplanted index finger.

A technical step which is of great value in these procedures, is the use of an intramedullary bone graft to maintain axial rotation of the transplanted finger at an angle of 90 degrees and to face the remaining fingers.

Of prime importance is the maintenance of a bloodless field by the application of a pneumatic tourniquet, e.g., the Kidde-Robbins tourniquet. Skin flaps must be allowed for, to provide proper cutaneous suturing without tension. The hand is maintained in a plaster cast for eight to twelve weeks, and early motion is instituted.

A case is reported in detail, in which a subtotal reconstruction of the thumb was performed, the index finger being used as a transposed digit. The advantages of this method as regards total rehabilitation of an injured major hand are indeed many.

Exposure in abdominal surgery and safe isolation of the bowel.—(*Northwest Medicine*, January 1958).

One of the chief problems of exposure in the abdomen, especially in

these individuals, is the isolation of small bowel from the operative field. The problem becomes greater when one needs free exposure over considerable distance. It is always difficult to successfully pack small bowel out of the operative field and keep it isolated. The mass of small intestine, plus the heavy packing sponges, fill such a large part of the abdominal cavity that often there is little room left for exposure of the area as desired.

Isolation of the bowel can be achieved by the use of a bag made of plastic material known as vinyl film. It is tough, durable, and may be autoclaved at the same temperature as rubber gloves without losing its softness, colour, transparency, or pliability, or deteriorating in any way. These bags are made by folding a sheet of vinyl film to the desired size and sewing the edges on a machine after applying a small strip of binding tape for strengthening. The bag which has been employed measures 18 inches in length and 16 inches in width. The large opening of the mouth of the bag can be narrowed by loose ties which are sewn into place on one edge of the opening.

It is sometimes necessary to free the lateral attachments of the cæcum in order to include all the small intestine from the terminal ileum to the ligament of Treitz. The mouth of the bag can be narrowed with the tie, but without constriction, and the whole mass of bowel thrown up over the abdominal wall. A sponge moistened in warm saline is first inserted in the bag, previously autoclaved, and the bowel placed on this warm saline pack. With the bowel completely mobilized into the abdominal wall, the posterior abdomen is exposed widely for any surgical procedure which may be necessary.

The manoeuvre is especially valuable, for instance, in approaches to the abdominal aorta and iliac vessels for aortic arterial grafting, or for thromboendarterectomy, or for bilateral transabdominal sympathectomy, which one may want to employ as an adjunct to other surgery. The exposure is excellent from the level of the ligament of

Treitz to the pelvis. The method is applicable to surgery of the left colon, where the necessity of packing away loops of small bowel may be annoying, especially in obese individuals.

Use of the plastic bag also minimizes handling and trauma to the bowel. It decreases the cooling effect of prolonged exposure which tends to be more shocking to the patient and is conducive to development of paralytic ileus.

One must be careful, when the bowel has been laid up on the abdominal wall, that the assistants do not inadvertently lean against, or put pressure upon the extruded bowel, or traumatize it by forceful retraction against the mesentery.

Use of these bags is of great value in certain cases in which exposure by other means is difficult. They protect the bowel, provide easy posterior abdominal exposure with the small bowel isolated, are inexpensive, are easy to prepare and they may be autoclaved without being damaged.

Ascorbic acid and surgery.—(Annotation: *Br. Med. Jour.*, 24-5-1958).

The body's needs for ascorbic acid are known to be increased during wound healing and infection, and it might be supposed that the stress of major surgery would act in a similar manner. Information on this point is scanty, and the recent report by J. H. Crandon and his colleagues on ascorbic acid economy in surgical patients is therefore, welcome (*New Eng. J. Med.*, 258: 1958). Since urinary levels of the vitamin show considerable variation, it is necessary to use blood for the estimations. Here the buffy-coat concentration, though small, is more reliable than the level in the plasma, which alters rapidly with fluctuations in intake. By the standard method of J. H. Roe and C. A. Kuether, the normal plasma ascorbic acid averages 0.7 mg. per 100 cc. and the buffy-coat level 15-30 mg. per 100 g. Deficiency is indicated by values below 0.2 mg. per 100 cc. and 8 mg. per 100 g. respectively. In 105 patients undergoing surgery there was an average post-operative fall of 17

and 20% in the two levels, the greatest drop occurring in those patients with the highest initial values. There was, however, no correlation between the degree of fall and the type of surgery. The striking thing about these figures is the relatively minor effect of surgery, and this, as Crandon and colleagues point out, may be due to post-operative hæmo-dilution rather than to the effect of an acute stress. It seems unlikely that human patients utilize ascorbic acid during stress in same way as the experimental animal.

Ascorbic acid plays a part in the metabolism of tyrosine, and scorbutic patients excrete large amounts of tyrosyl derivatives after a test dose of this substance (*J. Lab. Clin. Med.*, 34). In the present investigation it was found that the ability to metabolize tyrosine correlated well with blood levels of ascorbic acid. Less than 2 g. of tyrosyl derivatives were excreted in the urine of healthy subjects over a three-day period following the ingestion of 30 g. of *L*-tyrosine. When ascorbic-acid deficiency existed, the amounts excreted ranged between 2 and 5 g. Many patients who were regarded as deficient on the evidence of both tests underwent operation without incident, and a study of a selected group of 46 whose wounds later broke down showed deficient blood levels in only 19. This does not imply that surgery is safe in the face of a known deficiency, and extra ascorbic acid should be given to patients with a poor dietary history or severe infection, and to those with complicating sepsis of delayed wound healing after surgery. It is probable that at least 200 mg. daily is necessary, and in some cases even greater amounts may be required. Moreover, other complications of operation may be attributable to ascorbic-acid deficiency, and there is a need for further research into this problem.

Polypsis.—(via *J. A. M. A.*, 167: 5, 31st May, 1958).

Dr. Silvio Levy (*Revista do Hospital Matarazzo Sao Paulo*) cites as evidence to show that polyps of the

colon or rectum are premalignant lesions: (1) the fact that both polyps and carcinomas are located in the various segments of the large intestine in almost equal percentage; (2) the parallelism between the incidence of carcinomas and polyps of the large intestine in adults, in different ages and sexes; (3) the frequency with which polyps are associated with rectocolic carcinoma; (4) the transformation of non-treated polyps into carcinoma; (5) the presence of adenomatous remaining tissue in many rectocolic carcinoma, even in a late stage; (6) the high incidence of malignant degeneration in multiple polyposis; and (7) the high incidence of carcinomatous structure in many rectocolic adenomas. Differences persist as to the criteria to be adopted by the pathologists concerning the diagnosis of malignancy in adenomas. Many do not recognize the existence of malignancy unless there is a definite invasion of the tissue by neoplastic epithelial elements. They thus reject the concept of the confinement of malignant cells (*carcinoma in situ*). The greatest incidence of polyps has been found in the age group 40 to 80, men being more subject to them than women and white people more than non-white. In the author's series of 67 patients with polyps, 18 had carcinoma. Some of these were under 10 years of age.

The author advocates: (1) sigmoidoscopy in every patient examined for the first time, regardless of his age; (2) annual sigmoidoscopy in every patient over 40; (3) annual sigmoidoscopy and barium enema in all patients with a familial history or with a previous polyp; and (4) sigmoidoscopy with barium enema in all patients with rectal symptoms; this procedure should be repeated after six months if the first examination gives negative findings.

Prostatitis and ankylosing spondylitis.—(*Brit. M.J.*, 1: 748; 1958).

Mason and co-workers investigated the incidence of prostatitis in men with ankylosing spondylitis. A possible association was suggested by

the occurrence of prostatitis in patients with Reiter's syndrome and the frequent presence of genital infection in patients with ankylosing spondylitis. The authors studied 54 men with the latter and compared them with 86 who had rheumatoid arthritis and 59 who had Reiter's syndrome. Prostatic fluid was obtained by massage and examined by dark-field microscopy for clumps of polymorphonuclear leucocytes. The diagnosis of chronic prostatitis-vesticulitis was made on finding clumps of pus cells containing a minimum of 10 cells per high-power field. A high incidence of prostatitis (83%) was found in the patients with ankylosing spondylitis, compared with a much lower incidence (33%) in those with rheumatoid arthritis. As would be expected nearly all patients with Reiter's syndrome had prostatitis. Whether the coexistence of ankylosing spondylitis and prostatitis is an associated phenomenon or whether the conditions are aetiologically related is not clear. Until the organism responsible for nonspecific urethritis is identified, cause and effect cannot be distinguished, and at present no more than an association between the two conditions can be established.

OPHTHALMOLOGY

Cataract and diabetes.—(*Br. Med. J.*, 24-5-1958).

Diabetes can cause cataract of the lens; but it must be remembered that there are two kinds of cataract which may occur in diabetic subjects: First ordinary lens changes of the senile type, which, however, occur more frequently and at an earlier age than in non-diabetics and tend to progress more rapidly. Secondly, true diabetic cataract, characterized by widespread and pathogonomic subcapsular changes occurring bilaterally, which tends to run an acute course and occurs preferentially in young persons. The latter type is rare, and is due essentially to osmotic influences. There is abundant experimental proof of the relationship of the lens changes to the diabetic state in this type of cataract.

The optic nerve in some general diseases.—(*N.Y.St.J. Med.*, 15-12-1957).

Aetiologically diseases of the optic nerve may be caused by any of the following disorders:—inflammation in adjacent structures, systemic infection, multiple sclerosis and allied diseases, hereditary affections, circulatory disorders, trauma, malnutrition, and tumours, as well as by unknown disorders.

Papilloedema of the optic nerve:—Papilloedema usually is the result of increased intracranial pressure causing interference with the circulation in the central retinal vein.

Clinically vision is unaffected in the early stages, but if atrophy develops, vision may be impaired at a later time.

The fundus shows an elevation of the disc varying from one to seven diopters. In the early stages the disc is usually defined, except nasally, and the vessels bend as they pass over the disc margin. Later oedema of the surrounding retina frequently obscures the disc borders as well as the vessels on the disc. Haemorrhages may be present on and surrounding the disc. The veins are dilated and tortuous, and venous pulsation may be absent, even when pressure is exerted on the eyeball. Small arteries generally become prominent and may produce a striated appearance. The condition is bilateral, except under special conditions such as previous atrophy of one nerve.

Neomycin in ophthalmology.—(*Editorial, B.M.J.*, 21-6-58).

The use of antibiotics in ophthalmology can be divided into three categories; first, the treatment of infections of the soft tissues around the eye, as for example orbital cellulitis; second, the treatment of surface infections such as blepharo-conjunctivitis; and third, the treatment of deep corneal ulceration and endophthalmitis where the globe itself is involved.

The treatment of para-ocular cellulitis is by systemic administration of antibiotics and differs in no way from the treatment of cellulitis elsewhere. Superficial infections can usually be

dealt with by the topical application of antibiotic drops or ointment. The treatment of infections of the eye itself, however, presents special difficulties, since neither by topical application nor by systemic administration do antibiotics enter the intraocular fluids in sufficient quantity to be of therapeutic value. Only by subconjunctival injection of a concentrated antibiotic solution can satisfactory intraocular levels be attained. To be suitable for subconjunctival injection an antibiotic must be highly soluble in water and the solution must be relatively non-irritating to the tissues. Penicillin, streptomycin, and polymyxin fulfil these conditions and can be given subconjunctivally in the treatment of ocular infection. Chloramphenicol, chlortetracycline ("aureomycin"), oxytetracycline ("terramycin"), and erythromycin are unsuitable for subconjunctival injection.

A recent report by A. Sorsby and J. Ungar (*Ann. Roy. Coll. Surg. Eng.*, 1958, 22:) indicating the suitability of neomycin for subconjunctival injection is therefore of considerable interest. Neomycin is not a new antibiotic, for its general properties were described by S. A. Waksman and H. A. Lechevalier in 1949, and its value as a topical application in the treatment of superficial ocular infection is well recognized. A. W. Vogel and colleagues noted that solutions of 100 mg. per cc., were well tolerated when given subconjunctivally. Sorsby and Ungar, however, have now shown that 500 mg. of neomycin dissolved in 1 cc. of 1:4,000 adrenaline solution may be given safely by subconjunctival injection. Furthermore, one such injection produces a therapeutic level of neomycin in the aqueous humour lasting for twenty-four hours. Initial clinical trials appear to confirm that subconjunctival injections of neomycin are practicable.

Since neomycin has a very wide range of antibiotic activity and sensitive organisms do not readily develop increased resistance, it seems probable that it will be very useful. Intraocular infections progress with great

rapidity and early effective treatment is essential if sight is to be saved. As neomycin is active against both cocci and gram-negative bacilli it may well prove invaluable when the nature of the infecting organism is not immediately apparent.

Papillitis (Intraocular optic neuritis).—(*N.Y.St.J.M.*, 15-12-1957).

In the early stages optic neuritis is difficult to differentiate from papilloedema if the appearance of the fundus is the only diagnostic criterion. In the beginning the disc may be merely hyperæmic but when the condition is well established, the clinical picture reveals an elevated swollen disc. The margins become blurred and hæmorrhages are common. The site of the optic disc is at times recognized only by the convergence of the retinal blood vessels, because its margins become so indistinct. The retinal vessels are altered and may seem to be interrupted where they are covered by oedema. Arteries are thin, but the veins are distended and tortuous. The adjacent retina is oedematous, congested, and presents white patches and hæmorrhages.

Syphilis is a common cause of papillitis. Less frequent causes include encephalitis, meningitis, acute febrile diseases, focal infections (nasal accessory sinuses, teeth, and tonsils), and occasionally exogenous poisoning. It may accompany intraocular disease and injuries as well as orbital and periorbital inflammation.

Nephritis retinopathy (Arteriospastic retinopathy in kidney diseases).—(*N. Y. St. J. M.*, 15-12-'57).

Retinal changes pathognomonic of nephritis include fibrinous so-called "cotton wool" exudates or star-shaped exudates, and oedema, at times simulating papilloedema. Hæmorrhages are usually flameshaped but may appear in other forms.

In acute glomerulonephritis the eye findings are narrowing of the retinal arterioles, a white line running along

the path of the vessels, an oedematous optic disc with blurred margins, oedema of the retina, and round hæmorrhages in the deeper retinal layers or linear and radial hæmorrhages in the superficial layers of the retina.

Subacute glomerulonephritis develops when the acute form does not respond to treatment. In this type the retinal changes resemble those of the acute disease, but the process is markedly progressive and death may occur within six months.

In chronic glomerulonephritis there may be remissions and recurrences over a period of 20 years. Retinal changes are observed only when hypertension and general arterial constriction exist. The retina becomes oedematous and hæmorrhages and cotton wool patches appear. In the macula glistening white spots and a stellate figure are often observed. The optic disc is usually oedematous. The vessels show angular tortuosity, variation in calibre, apparent constriction at the arteriovenous crossings and narrowing of the arteries.

The optic nerve in multiple sclerosis.—(*New York State Journal of Medicine*, December 15, 1957).

Although nystagmus, pupillary disturbances and transient paralyses of extra-ocular muscles are found in a fair percentage of cases of multiple sclerosis, involvement of the visual pathways occurs as a result, and optic neuritis is an early and most prominent ocular sign. It affects usually one eye first, although later the fellow eye may become involved. In the average case sudden and rapid loss of vision is the substantiating symptom. In most patients no pathology can be found in the fundus at this stage. In very acute cases papillitis may be observed. Temporal pallor is the usual residual finding, accompanied by corresponding changes in the visual field. Since optic neuritis frequently occurs long before any other sign of multiple sclerosis becomes evident, the latter must be ruled out in every case of optic neuritis, even

in the absence of other neurologic disturbances.

Treatment is nonspecific for, at the present time, there is no known successful treatment for multiple sclerosis. It is important, however, to avoid tobacco, alcohol, and mental and physical strain.

Chloromycetin in the treatment of corneal ulcers.—(*Chinese J. Ophth.*, 8 (3): 187-188, 1958).

Favourable results were reported in 51 cases of corneal ulcers of various ætiology treated with local chloromycetin. The powder was dusted into the eye once daily. No other treatment was given besides atropine. The percentage of cure was 82.35; a great majority of the cases were healed after 4 to 5 applications. Three cases of Mooren's ulcers and 2 cases of hypopyon ulcers showed only slight improvement. One patient had allergic dermatitis which subsided quickly after cessation of the treatment. None of the cases became worse. It was concluded that local application of chloromycetin powder for corneal ulcers was simple and effective.

DERMATOLOGY

Primary and secondary tuberculoid leprosy.—(*International Journal of Leprosy*, 24: 3).

Primary tuberculoid leprosy is a manifestation of the power of resistance against the leprosy bacillus on the part of the infected individual and by suitable treatment its conversion to lepromatous form can be prevented.

The infiltrations and nodules of lepromatous leprosy under treatment are gradually absorbed and the bacilli changed to lipid granules; also the negative Mitsuda reaction is converted to a positive one in these cases, indicating increased power of resistance. The histopathology of the late positive Mitsuda reaction nodule in these treated lepromatous cases corresponds to that of the tissue granuloma of tuberculoid leprosy. The author concludes

that the immunological characteristics of the treated and subsided lepromatous cases are similar to those responsible for the production of primary tuberculoid leprosy in a newly infected case. He, therefore, advocates the use of the term "secondary tuberculoid" leprosy to such recovered lepromatous cases.

Chlorpromazine in the "painful" complications of leprosy.—(Ramanujam, K., *Leprosy Review*, 28: 2).

Chlorpromazine (Largactil brand) was found to be of value in relieving the painful complications of leprosy. 31 patients having complications like neuritic pain, joint pain or generalized agonising body-ache had been selected and treated in 3 ways. One group received Largactil alone orally, another Largactil tablets and 'dummy' Potassium antimony tartrate I.V. (distilled water), a 3rd group both Largactil tablets and Potassium antimony tartrate I.V. All the patients obtained complete relief in periods varying from 4 to 16 days. Combined largactil and potassium antimony tartrate therapy appeared to give better results in cases with agonizing pain than when either of these was given alone.

Treatment of impetigo contagiosa.—(*J. Irish Med. Assoc.*, 41: 122, 1957).

Dr. F. O. C. Meenan investigated a series of 20 cases in children, attend-

ing the outpatient clinic of the Dublin Children's Hospital and compared the results obtained in the treatment of impetigo between a broad spectrum antibiotic. Aureomycin 3 per cent ointment, and an old fashioned remedy Lassar's paste (P. H. A.) 2% ammoniated Hg. ointment.

Mothers were instructed to clean the lesions twice daily with liquid paraffin and then apply aureomycin to one side of the face and body and Hg. paste to the other. The children were seen at twice weekly intervals until healed, i.e., when new epithelium had grown over the infected areas.

There was no case of sensitization or intolerance to either preparation. Sixteen cleared satisfactorily in 7 to 10 days; 4 required 15 to 20 days; in 4 cases there was no apparent difference between the two. In 2 cases Lassar's paste seemed to be more effective; in the remaining fourteen aureomycin was superior. Five were healed 3 to 7 days more quickly by aureomycin than Lassar's. In 9 aureomycin was better by 2 to 3 days.

However, it does not appear to be markedly very superior. In 50% of cases it was only better by 2 or 3 days; in 6 cases it was no more efficient. It is freely admitted that the aureomycin ointment is easily spread on the skin, and therefore less is used than of the Stiffer Lassar's paste.

BOOKS RECEIVED

Report of the United Nations Scientific Committee on the Effects of Atomic Radiation—United Nations, New York 1958. Received from The Director, United Nations Information Centre, 21, Curzon Road, New Delhi.

Publication of the World Health Organization 1947-57—A Bibliography. Pp. 128. (W.H.O., Palais des Nations, Geneva). Price 17/6d.

Microbiology of Water and Sewage—By P. L. GAINES AND THOMAS H.

LORD. Pp. 430. (Longmans, Green & Co. Ltd., 6 & 7, Clifford Street, London 1). Distributors in India, M/s. Orient Longmans Private Ltd., 36A, Mount Road, Madras-2.

Insecticide Resistance in Arthropods—By A. W. A. BROWN. Pp. 240. (W.H.O., Palais des Nations, Geneva) Price £1.5s

Nagarjun—Annual Number, Aug. '58 Pp. 1075. 8-D, New Alipore, Calcutta 33.

REVIEWS OF BOOKS

The Medical Annual 1958—Edited by Sir HENRY TIDY, K.B.E., M.A., M.D. (odon.), F.R.C.P. and R. MILNES WALKER, M.S. (Lond.), F.R.C.S. Seventy-Sixth issue. 586 pages. 42 plates and 30 text illustrations. John Wright & Sons Ltd., Bristol. Price: 42 sh.

This year's Medical Annual which is the 76th consecutive issue is presented in an improved form. The Editors believe this will be more useful. Hitherto the articles have been arranged in alphabetical order according to their individual titles. But in this issue the articles have been arranged as a review of the year's work in sub-sections, complete in themselves. These sub-sections ranging from "Alimentary Diseases" to "Vital Statistics," contain all the reviews from contributors who are internationally well known and who have dealt with the various specialities in an authoritative manner. Dr. Wilfrid Sheldon writing on "The Changing Emphasis in Paediatrics" deals in an exhaustive manner on the very many ailments of children. He lays special emphasis on the study and development of child psychiatry. Dr. Bishop writes on the difficult problem of Intersexuality. He has succeeded in dealing with a difficult subject in a very clear manner. In a book that is uniformly well written it is difficult to pick out excellent articles but still we should ask the readers to make a close study of the articles on Ulcerative Colitis, Liver and Pancreas, Inhalation anaesthesia, Intra-cardiac surgery, Poliomyelitis, Tranquillizing drugs, Legal decisions, Psychomatic relationship, Diabetes, Nutrition and Vitamins, Occupational health, Cancer of the lung, Chronic Rheumatic Diseases, the Use of X-rays in Dermatology and Eosinophilia. The Sections on Veterinary Medicine in relation to Human Medicine and Vital Statistics make useful reading. At the end of the book there is a Practitioners' index giving recent pharmaceutical and dietetic preparations, Medical and Surgical Appliances, List of books of the Year and a very useful and exhaus-

tive general index. The book is well printed and the illustrations are very good. The present issue maintains the excellence of its predecessors and is a well documented useful survey of progress in every field of medicine and surgery and medical and surgical practice. We recommend the book to all practitioners.

The Mammalian Cerebral Cortex—By B. DELISLE BURNS, B.A., (cantab.), M.R.C.S., L.B.C.P., Associate Professor of Physiology, McGill University, Montreal, Canada. Pp. 119. (Edward Arnold (Publishers) Ltd., London). Distributors in India: M/s. Orient Longmans Private Ltd., 36A, Mount Road, Madras-2. Price: 21 sh. net.

This is the fifth book in a series of monographs of the Physiological Society, and contains chapters on "The General Properties of Isolated Cerebral Cortex," "After discharges," "The Spontaneous activity of Central Neurones," "The Transmission of Excitation within the Cerebral Cortex," and "The Problem of Memory." Neurophysiology is a very difficult subject. The terms are complex and the apparatus is also complex. The author has tried to present this difficult subject in as simple a language as possible. How far he has succeeded it is difficult to say. The author's conclusions will, we are sure, stimulate further research. The book is bound to be of great use for the research worker in physiology.

Manual of Medical Emergencies—By STUART C. CULLEN, M.D., Professor of Surgery; Chairman, Division of Anaesthesiology, State University of Iowa College of Medicine and E. G. GROSS, M.D., Professor and Head of Department of Pharmacology, State University of Iowa College of Medicine. Third Edition. The Year Book Publishers Inc., 200 E. Illinois St., Chicago 11. Pp. 302. Price \$5.75.

The purpose of this book is to make available to the physician a handy reference that will facilitate meeting acute emergencies. Beginning with

a chapter on Artificial Respiration the book proceeds to discuss the Establishment of Airway, Oxygen Therapy. It next deals with Circulatory Emergencies like Sudden Cardiac Arrest, Angina Pectoris, Myocardial Infarction, Shock. The next chapter is on Acute Poisoning which is dealt with in a fairly exhaustive manner. Head Injuries and how to deal with them are next dealt with. Acute Comatose States are described with their management and lastly miscellaneous emergencies like Gastric Dilation, Burns, Sunstroke and Heat Exhaustion are described. The book is written in a very simple manner and printed and illustrated in a practical way. We recommend this book to all physicians.

The Mysore Government College of Indian Medicine Magazine, Volume III, May 1958.

This well-got up volume of the Government College of Indian Medicine Magazine, is stated to be "dedicated to moulding the varied and conflicting opinions of the public in general, towards the teaching of Ayurveda in the oldest premier institution, to the so-called 'Integrated system of medicine which means a scientific approach to Ayurveda.' We are indeed very glad that the Editor is not overbiased in favour of the ancient system to the exclusion of other modern scientific systems. He is indeed very frank when he says 'Modern system of medicine with its

technological scientific advances in physiology, biochemistry, surgery, clinical and preventive medicine, obstetrics, anaesthesiology, antibiotics etc., combined with a realistic approach of Ayurveda to the theory of diseases will certainly work wonders. The cry of *Suddha* (pure) Ayurveda is a passing show..... Science ceases to progress without a dynamic outlook and a change in concepts that really matter." The Chief Minister of Mysore blesses the journal and says what every administrator has been stating for several years now, viz., "I am of opinion that a happy fusion of Ayurveda and Allopathy may yield greater benefits to suffering humanity." We do hope that the intensive research planned and under way in many institutions, at a fairly high cost, will follow the right lines and evolve some practical and rational scheme for a proper integration of the ancient and modern systems, though a significant number of no-changers think and say 'Integration is impossible' and perhaps with some little reason.

The present issue of the Magazine contains quite a number of useful and well-written articles in English, Canarese, Hindi and Urdu and is bound to interest readers of the different categories and having varied interests. The articles relate to a variety of common diseases and contain valuable hints on diagnosis and treatment. We wish our contemporay all success.

T.N.S.R.

NEWS AND NOTES

Gift of Baby Food to Calcutta Clinic

Messrs Bengel Laboratories Limited have donated over a ton of their Baby Food to the St. John's Ambulance Sisters' Baby Clinic at Calcutta. We congratulate the institution on this very laudable gift.

Dr. Lampen Succeeds Dr. Walksman

Dr. J. Oliver Lampen has succeeded Dr. Selman A. Waksman as Director of the Rutgers University Institute of Microbiology. Dr. Waksman, a Nobel Prize Winner in 1952, was co-discoverer

of Streptomycin. Dr. Lampen has done much research in the field of heart disease, cancer and mental illness. Dr. Lampen, who was associated with the Squibb Institute of Medical Research is 40 years of age. He formerly taught at Washington University in St. Louis and Western Reserve University Medical School in Cleveland, Ohio.

The Oldest Man in the Soviet Union
Mahmud Bagirogly Eivazov living in the village of Pirassura, Azerbaijan,

is the oldest man in the Soviet Union. He was born 150 years ago and is living to this day. Mahmud's mother Agabany lived to the age of 150 and his grandfather to 120. Mahmud had 24 sons and daughters.

Important Advance in Fight Against Trachoma

An important advance in research into the means of conquering the dreaded scourge of trachoma—an inflammatory eye disease which is the greatest single cause of blindness—is announced by the Lister Institute of Preventive Medicine, London.

Dr. Leslie Collier, Chief Virologist at the Institute, who two years ago began investigations aimed at cultivating the elusive trachoma virus in the laboratory, has now reported success. A volunteer has been successfully infected with a virus cultivated by Dr. Collier and a colleague. This proves that their virus causes the clinical disease.

About 400,000,000 people in the world are estimated to be infected with trachoma. Although the disease is very rare in Britain, it affects between 80 and 100 per cent of some communities in North Africa, is rife in the Far East, and extremely com-

mon in many villages of West and East Africa.

The British scientists will be able to find out what antibiotics are most effective in checking the growth of the virus, now that it can be grown at will in the laboratory test tube. Best prospect of all is that it may at last be possible to produce an effective vaccine which could eradicate the scourge of trachoma from the world.

9,000 Nurses to Meet in London

More than 9,000 nurses from many overseas countries and all parts of Britain will visit London next month (October 13-17) for the 43rd Nursing Exhibition and Conference. The conference, described as "the finest post-graduate course for nurses in existence," will be opened by Princess Alice, Countess of Athlone. A number of Indian nurses studying in British hospitals will attend.

There will be a daily programme of lectures by eminent specialists, as well as an exhibition of the latest developments in drugs, foods, pharmaceuticals, and hospital and allied equipment. Lord Evans, the Queen's Physician, has agreed to act as President of the Conference, while the Honorary Convenor will be the noted surgeon Sir Cecil Wakeley.

PREPARATIONS AND INVENTIONS

Sinora—Manufactured by Sinora Chemical Works, 538, Chira Bazar Road, Bombay-2.

This preparation which has an open formula has been in the market now for over 40 years. It has a well-balanced formula and is claimed to be an effective expectorant and sedative and to be used with good results in Asthma, Whooping Cough, Cough, Chronic Cough, Bronchitis, Cold and other respiratory ailments. One outstanding peculiarity is the preparation does not contain ephedrine.

Composition: Pot. Iodide; Spt. Ammonia Aromatic; Tinct. Urginea; Tinct. Stramonii; Tinct. Lobeliae aetheris; Liq. Arsenicalis; Liq. Gly. Trinitratris; Codeine; Morphine Hydro-

chloride; Ext. Glycerrhizae Liq.; Glycerin as Base. (Alcohol 27.7% V/V)

Issued in 3 oz. bottles and palatable to taste, SINORA is reported to be very popular with physicians and patients because of its prompt and effective action.

Local stockists: Messrs Dadha & Co., Nyniappa Naick St., Madras-3.

Lederkyn

A new sulpha drug claimed to be eight times more effective, known to chemists as sulfamethoxypyridazine has been produced and is being used throughout the world in recent months. Its action is much longer lasting and amounts to as small as one-eighth of

those hitherto required to accomplish the same results against infection. The new drug is claimed to remain in the blood for days and therefore only one dose instead of several is necessary every 24 hours. It is said to be useful in stubborn genito-urinary infections, rheumatic fever, bacterial dysentery

and upper respiratory infections. Side effects are reported minimized by Lederkyn because of its considerably greater solubility in the body and the lower dosage requirement.

Lederle Laboratories Division, American Cyanamid Company are the developers of the new Lederkyn.

AN APPEAL FOR HELP

We publish below an appeal issued by the Assam Medical Relief Committee of the Indian Medical Association, from Gauhati. We recommend the appeal to all philanthropic minded doctors.

The State of Assam, since its cruel devastating Earthquake of 1950, has become the victim of annual floods and epidemics filling the cup of misery of the people living in it. The task of offering medical relief in the affected areas, has become such a gigantic problem, that the Government alone can not be expected to tackle adequately. It leaves room for help from many voluntary organizations.

In this context the Assam State branch of the Indian Medical Association has opened out a branch organisation known as Assam Medical Relief Committee formed in 1950, has during its seven years of existence shown creditable work amongst the flood and earthquake

victims. The Government and the people of Assam have unequivocally praised the activities of the organization. Copies of a brief report detailing the activities of previous years have been sent to us.

Needless to say, this was possible only, with the annual and periodic help of the various philanthropical chemical and pharmaceutical concerns, organizations and individuals in places, both inside and outside Assam. Counting you as one of them, we naturally look forward to you for your generous help this year too. We hope we shall not be deprived of your kindness.

We are badly in need of medicines used in Cholera, Dysentery, Malaria, Influenza, Typhoid, Anaemia, T.B., Hookworm, Malnutrition of Children.

Contributions however small will be gratefully acknowledged should be sent to the Secretary, A.M.R. Committee, Uzanbazar, Gauhati, Assam.

ANNOUNCEMENT

Changes of dates of "Symposium on fungus diseases in India"

The Symposium on fungus diseases in India previously notified to be held in December 1958, has been deferred due to unavoidable reasons. The final dates for the Symposium are February 5 and 6, 1959. Last dates for sending abstracts (not exceeding 300

words) and full papers have been extended to October 30 and December 15, 1958 respectively. Dr. C. G. Pandit, Director, Indian Council of Medical Research, New Delhi has kindly consented to preside over the Symposium.

Scientists from the U.S.A. and U.K. are expected to participate in the Symposium.

DIAGNOSIS OF HÆMORRHAGIC DISEASES

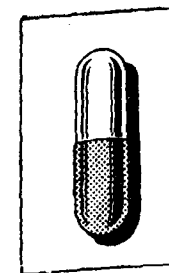
The personal and family history is more important than all of the laboratory tests in the diagnosis of diseases characterized by abnormal bleeding. Every individual is daily exposed to tests of trauma. We bump into objects, wear tight clothing, brush our teeth, and shave. Cuts, operations, extraction of teeth, menstruation, and childbirth reveal the presence of hæmorrhagic disease, if it is present. The pattern of many of the hereditary diseases is so characteristic that the diagnosis can be made often from the history alone.—(L. W. Diggs, M.D., *Journal Florida Medical Association*, August 1957, via *Current Medical Digest*, April 1958).

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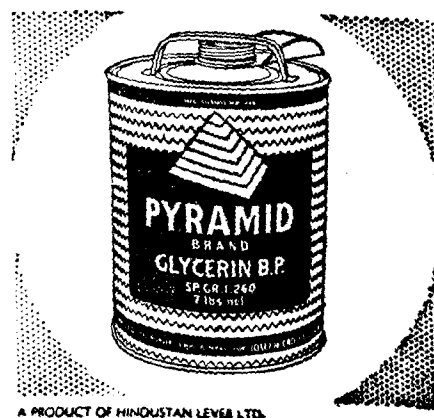
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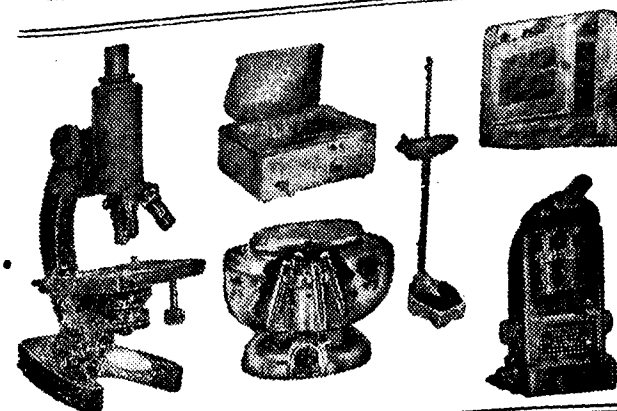
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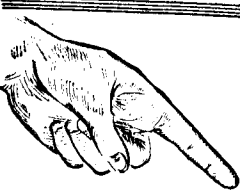
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" B-Complex 10cc. forte 1-50 Sup.	Ind 5cc 7-00; 10cc 9-50	Thermometers 1/2min. Hicks 4-25
" Forte 2-12; oral 4 oz. 2-50	" Sandoz 5x10cc 5-50 10x5cc 8-75	Zeal Eng USA Jap. Ger. Flat
" B Complex Bys 10 cc 2-00	" " with Vit C 10x5cc 11-25	42/- 27/- 30/- 18-75 20-50 18-50
" B1 100mg 10cc 0-8 50x2cc 8-50	" 5x10 cc 6-25; 50x5cc 51 00	Saline app. 300 7-50 500cc 8-50
" B1 & B6 10 cc. 50 mg. 2-75	Dietill Water 100 amp 2cc 2-62	Abs. Gauge 20yd 2-75 Erkameter 80-0
" B6 10cc 50mg 2-75 100mg 3-75	5cc 3-12 10cc 4-50	" Ear or Glycerine Metal Syringe
" B12 10cc. 100 mg 2-37	Emetine Hyd 1gr 100A 48-50 12A 6-25	" 2cc 4-50 1cc 5-50
" 200mg 4-50; 500mg x 5cc. 6-97	Emetine 1 gr 10A 10-00	" F.L. or d 1-50 Sup. 3-00 doz.
" 1000 mg x 5cc. 10-50	Ergapryl 5A 7-37; 60A 88-00	" Crocodyl finish 5-50 "
" C 2cc 10A 1-75 50A 7-00	Milk with Iodin 5cc 100, 6-75	" Stethoscope B.D. 36-00; Ger 15-00
" C 5 cc 10 A 2-50; 50 A 12-25	Progesteron 10mg 50 20 25 6 2-75	Wall Thermometer Jap. 2-00
" D2 6x1cc 1-62	6A 25 mg 3-75; 50 mg 4-75	Artery Forcep 2-25 Scissors 1-50
" E 6A 1-87; 10 cc. 1-75	10 cc 25 mg 4 25 10 mg 2-82	Scalpel 1-00 Probe 0-50
" K 10A 2-00; 100A 18-00	Liver Ext. TGF 10cc 2-50 B&C 3-37	Suture Needles St. C&HOC; 3-00
" AD 5 Amp. 1-87; 10 cc 2-00	Normal Saline 100A 5cc 3-75	Scalpel Blades 6 Eng. Pkt. 2-50
" AD TAB 1001-62; 1000 10-75	Santonine M&B 8-25; 100 24-00	" Handle " 4-50
" ADE " 100 6-00; 500 27 75	Testosterone Prop. 6 Amp. 1cc	Tongue Depressor 1-0 folding 2-0
" BComplex 100 1-25 1000 6 25	" 10mg 2-50 25mg 3 50; 50mg 4-75	Tooth Forcep Universal Sup. 5-00
" " forte 100 2-25 1000 11-00	" 25mg 50 27 50 50mg 50A 35 00	Pat. Bromide 3-25; Pot. Iodide 11-50
" " B. forte 100 3-00 1000 15-50	" 10cc 25 mg. 5-25 50 mg 6-00	Silver Protein. 1-25 Vitellin 2-25 oz
" B1 10 mg 100 1-37; 1000 6-25	Aminophyllin 100 1 25; 500 5 00	Aspirin 6 25 Bod Salicylas 5-75
" " 25 mg 100 2-75	Camequin 250; Strp 31-00; 100 12-50	Iodoform 2-62; Iodin Cryst 1-50 oz.
" 100 mg 7-50 50mg x 100 4-50	Calomel tab 1gr 100 1-25 1000 7-25	Calomel ca 2-50 Menthel Cryst oz 4-50
" C 50 mg 100 1-50; 1000 8 25	Enterovioform 30 2-00; 100 8-62	Stethoscope Bag Plastic 1-25
" C 100mg 100 1-75; 1000 13 75	Iron Vit. B1 100 1-25; 500 6-50	Fountain Pen Torch Lamp 4-50 Sup 6 75
" E 10 mg 25 1-50; 100 3-00	Cibazol 20 1-50; 250 10-75	Ring Penary each 0-50 Vikalp 8 3-25
Folic Acid 15mg 10cc 2-12	Influenza tab 1000 14-0; 100 2-00	Empty Gelatine Capsules :-
Berin 10cc 50mg 2-0; 100mg 2-50	Laxative Veg. 100 1-50 1000 9-50	00 to 2 100 2-50 1000 12-75
Penicillin G Cryst. Glaxo or Domez	Soda Mint 1000 1-12 Boots 3-50	Temperature Charts 4 Hour 100 3 00
2 5 10 lacs.	Mapacrine 1000 21-50	Terramycin Eye oint. 1 75
0-45 0-65 1-00	Folic Acid 5mg 100 4-25 TGF 9-50	Emetin Hyd. 1 gr. 12 H.T. 6-25
0-50 0-72 1-09 8qtbb	Multivitamin 100 2-00 1000 10 75	Hazley's formates 4-87
Duplomycin 1-19	Paludrin 1000 1 g 23-75 3 g 59-50	Soda Bicarb 1b 0-62
" Procaine 90lac DMX or GI 1-87	Penicillin Tab. 1 1/2 gr. 100 1-75	Benadon 2cc 50A 29-00
" 4lac GI. 0-62 11a 0-44 Sub. 0-72	Saccharin 1000 tab 2-75 500 1-62	" 40mg tab 100 15-75 [5a 3-00
" " Oily 30 lac. x 10cc 1 50	Sulphanilamide Powder 7-00	Ephynal tab 100 mg 20 8-50
" tab. 12; 2 lac 2-00; 1 lac. 1-62	" 760 20 1-50; 500 22 50	Chloramphenicol 250mg 5A 9-50
" Oint. doz. Bys 4-00 Skin 5-50	" Nivaquin 500 42-50 100 8-50	P.A.C. 75 4-50; 250 12-75 [50a 25-50
" Losenges 100 2-50; 500 10-50	" Nivaquin 500 42-50 100 8-50	Pyromidon tab 20 3gm 4-75
" Diorystolein 1-34; 100 4-06	" Nivaquin 500 42-50 100 8-50	Stycol 20 tab Sedophis tab 25
" Seolomycin 1-34; 100 4-06	" Nivaquin 500 42-50 100 8-50	Measure glasses 1 or 2 dr 0-50
" Benapen for 1-34; 100 4-06	" Nivaquin 500 42-50 100 8-50	" 1 or 2oz 0-62; 4oz 1-00 8oz 1-50
" STREPTO-PENICILLIN DMX 1-19	" Nivaquin 500 42-50 100 8-50	
" Glucose 1/2 oz doz 6-00	" Nivaquin 500 42-50 100 8-50	
" Gum Acacia 1b 2-12	" Nivaquin 500 42-50 100 8-50	

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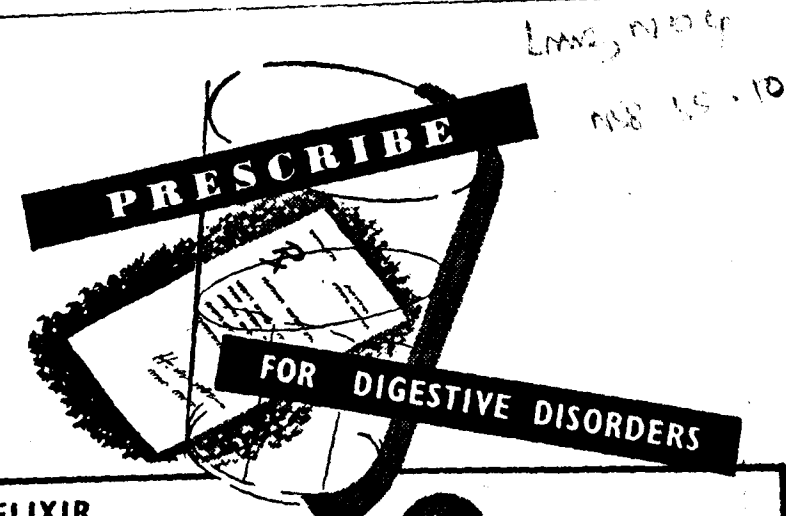
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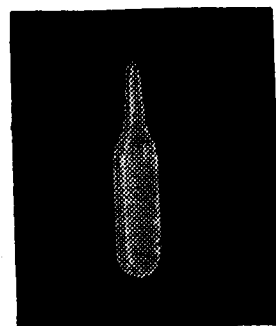
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