THE MISCELLANY

THE TRICHINOPOLY DISTRICT MEDICAL ASSOCIATION

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CONTENTS.

MISCELLANY
OF
The Trichinopoly District Medical Association
(REGISTERED)

JULY 1937

The conservative treatment of acute infections

BY

SIR DAVID WILKIE

(From the 'Clinical Journal' May 1937)

The Biological Outlook

The fundamental change in outlook to-day is due to the fact that surgeons have been trained to think more and more on biological, and less and less on mechanical lines. The delicate and complex series of local and general changes which combine to form the picture of reaction to a local infection, have as their main objects localization of the infection and mobilization of all the defence forces of the body. Nothing we do, therefore, must interfere on the one hand with localization, and on the other hand with the stimulation and mobilization of the general defensive mechanism. If we can encourage localization, and can supplement the defensive forces, we shall have truly played a useful rule in treating the infection.

Infective punctured wound of the hand and lymphangitis

Innumerable punctured wounds are received daily, and nightly are forgotten. When a virulent streptococcus is introduced, however a local blush and throb develop; red lines of lymphangitis are visible up the forearm, and the axillary glands become tender and inflamed. The patient feels shivery and out of sorts; and his pulse-rate and temperature are both considerably raised.

During the first 48 hours it is a grave mistake to incise the hand or finger. During this period Nature is making valiant efforts to wall off and localize the mischief; we must not blunder in and break her barriers.

The profession has never sufficiently recognized the value of the contribution made by Bier, in the shape of passive congestion, for such infections.

The special thin elastic bandage should be applied direct to the skin of the upper arm very lightly ; (not more than four or five turns—and secured by a bit of adhesive strapping.) It should be left on for not less than 22 hours out of the 24, and preferably left on continuously for the first three days. If applied correctly there will be no duskiness in the limb only very slight swelling, and *pain will be relieved.* If pain is aggravated the bandage must be reapplied more lightly. I have had frequent personal experience of aborting septic infections of fingers, by the use of congestion, and I consider it the *most valuable therapeutic measure* we possess for such infections.

Repeated hot fomentations over the hand and arm should be applied, and 30 c. c. of concentrated streptococcal antitoxic serum given subcutaneously after desensitization. In very virulent infections the respite given by localization with the congestive bandage, and the supply of a certain degree of passive immunity by serum may permit the natural protective forces to rally for successful defence when otherwise they might be overwhelmed. As Leonard Colebrook has shown, we may have at last in prontosil a chemical agent which will arrest the growth of organisms in blood-stream infection. Injections of this drug may well be tried. Meantime the knife lies idly by.

Boils and Carbuncles.

Incision into a boil on the supposition that it is a form of abscess is wrong in theory and mischievous in practice. Complete immobilization by strapping with elastoplast is, in my experience, the most effective form of treatment.

In the treatment of *carbuncle* there is a great variation in practice among surgeons.

The treatment which has lately gained favour, however, is the most conservative of all; namely complete occlusive treatment by elastoplast strapping, leaving the plaster in place for several days at a time. This treatment which at first sight

appears to transgress all the cannons of what, till recently, was considered sound surgery, namely the freest possible drainage in suppurative lesions, gives signally good results with less pain and less scarring than any of the more radical methods. It is probable that under the occlusive dressings bacteriophage develops and inhibits the growth of the *staphylococcus aureus*, and thus when the strapping is removed after four days or so it may be sodden and offensive, but it has done its duty in protecting an area in which infection has now begun to wane. In a severe toxic case of carbuncle in which tbe patient's life is in danger, the occlusive treatment should again be used, but should be supplemented by large doses of staphylococus antitoxic serum.

Chronic Ulcer of the Leg.

It was in the treatment of chronic ulcers that occlusive treatment first proved its value. The old method of treatment by Martin's elastic bandage, applied directly over the skin and ulcer, and left in position for several days, was a dirty but most successful line of treatment The same method with the use of the elastoplast bandage is in very common use to-day, and is the most rapid and successful method in obtaining healing of a chronic ulcer. Again, it is probable that the factors of rest, support, protection and bacteriophage action combine to encourage the formation of healthy granulation-tissue and the undisturbed healing of the sore.

Acute Osteomyelitis.

In acute bone disease, more and more, we come to distinguish the bone lesion rather as a fixation abscess in a staphylococcal septicaemia than as a tense, pent-up primary focus from which spread will occur unless free drainage be promptly given.

The first essential in Bier's view was to localize the infection to the bone until the patient's immunity had risen to a level which rendered blood-stream and metastatic infection unlikely. Passive hyperaemia produced by Bier's elastic bandage was the primary requisite, but in order that intra-osseous tension might be precluded, several small drill-holes were made into the bone through separate short incisions. In some cases

the openings into the bone were omitted, and only when obvious sub-periosteal suppuration was present, was an incision through the overlying soft parts made. The results were, to me, surprisingly good, and gave me a lasting doubt as to the validity of the radical measures which continued to be used in this country.

The method which has attracted most attention in the past few years is the occlusive dressing and fixation method advocated by Winnett Orr. The essentials are a moderately free opening of the bone, packing the open wound with sterile vaseline gauze and enclosing the whole limb in a plaster case, which is left on from three to six weeks. Under the case discharge accumulates and dries; an acrid odour of decomposition permeates the atmosphere around the patient, but pain is absent and the temperature subsides. When the case is removed, say four weeks after application, under the definitely repulsive-smelling, discoloured dressing, a clean, healthy, granulating wound is disclosed.

The development of bacteriophage in the retained secretions is the probable explanation of the result.

No hard-and-fast rule of treatment applicable to every case is permissible in this disease. Let our actions be guided, however, by the spirit of the biologists, not by that of the engineer.

Acute Peritonitis.

The great lesson, is this—*there is no active surgical treatment for general peritonitis.* It may be prevented by timely surgery, it may be survived by natural resistance, and certain complications may require surgical aid, but in medical measures—passive immunity by sera, fluid replacement if vomiting, heat and morphia as in the good old days,—in these must our confidence be placed.

Clinical experience has gradually confirmed these views, and the practical surgeon, has learned to abstain from interfering with Nature's barriers and to return to the old physicians ways. Some adynamic distension of the bowel is the rule in peritonitis, and for some days all efforts to get the bowel to act or flatus to pass must needs be unavailing. To give drugs

such as pituitrin, physostigmin, prostigmin or pitressin to stimulate the inflamed bowel to premature activity is irrational and manifestly wrong.

We have advanced in realizing that in keeping the stomach empty we relieve intra-abdominal tension and favour circulation through the bowel wall; we therefore leave *in situ* a duodenal tube passed to the stomach, strapped to the cheek and siphoning to a bottle below the bed. Loss of fluid and chlorides and a lack of nourishment we now make good by continuous intravenous administration of glucose-saline solution. If a preceding operation has shown the presence of streptococci in the pus, antitoxic serum is administered. If a gangrenous appendix and foul smelling pus was found, *B. Welchii* antiserum should be given. In the streptococcal cases, injections of prontosil should supplement the serum.

Acute Pleural Empyema

Now we no longer call aspiration waste of time, but regard it as the essential and rational form of treatment until the pneumonic inflammation is on the wane and adhesions of lung to parietal pleura have formed. Then the residual pleural abscess may be drained with freedom and with safety.

The Diagnosis and Treatment of Acute Poliomyelitis

(From the 'Clinical Journal' May 1937)

The following signs are confirmatory of a provisional diagnosis in the preparalytic stage.

Spinal sign:—The patient is disinclined to bend the head forward on account of the pain produced, and there is resistance to passive anterior flexion of the neck. When he is raised by the shoulders the head falls backwards and he cannot easily bring it forward again. A simple way of eliciting this sign is to ask him to kiss his knees.

Amos's sign:—This is a useful modification of the spinal sign in older children. When placed in the sitting posture and asked to fold his arms the child may attempt to do so, but

quickly reverts to the position in which part of the body-weight is borne by the arms, which thus makes a tripod of three legs, the spine being the third.

When stiffness of the spine or resistance of the neck to passive flexion supervene, associated with headache and fever, a provisional diagnosis is justified, and the cerebro-spinal fluid should be examined.

Night-blindness due to vitamin-A-deficiency

(From the 'Clinical Journal' May 1937)

Night blindness may be due to disease of the eye, such as retinitis pigmentosa, but it may also occur without ophthalmoscopic signs. Its connection with defective nutrition has a long been known. It frequently is found in scurvy, and it is often associated with conjunctivitis and xerosis of the conjunctiva. These facts, which were known have now been explained. Experiments have shown that vitamin A is the precursor of visual purple, and is present in large amounts in the retina. The relation between deficiency of this vitamin and night-blindness, xerosia conjunctivae, and keratomalacia has been established clinically. Night blindness, is an early symptom of of the deficiency. The visual defect becomes manifest only after the eye has been exposed to light, which uses up the visual purple.

The use and abuse of external applications

BY

HAROLD BALME, M. D. F. R. C. S.

(From the 'Practitioner' April 1937)

The Conveyance of Medicaments

In spite of all that has been said to the contrary, there is a wide-spread belief that numbers of useful drugs can be *rubbed into* the system—hence the popular use of camphorated oil on bronchitic chests, of turpentine stupes on distended abdomens, and of opium lotion upon sprained joints. In such cases the benefit which may undoubtedly follow is probably not due to the drug at all, but to the relief of pain and congestion resulting from either the heat, the cold or the friction produced in the course of its administration. There are, however, at least three drugs which are capable of absorption through normal skin, and which can profitably be administered, under certain conditions, as external applications. They are mercury, belladonna and iodine.

Mercury:—So used in the treatment of syphilitic infants, the ointment being applied to the baby's binder. In the treatment of chronic inflamation of bursae and joints the direct inunction of ung. hydrargyri around the affected part, is done, or it may be administered in the form of Scott's dressing by the use of strips of lint. At the same time, the tendency of the ointment to produce an irritative dermatitis, if left too long in contact with any particular area of skin, must be carefully borne in mind.

Belladonna, is generally administered in the form of the liniment or the plaster. Former of these is chiefly analgesic in action, but the plaster is the commonly employed vehicle. In this form it is popularly used as a means of stopping lacatation in a mother and is also of value in the treatment of chronic mastitis. Another purposes for which it is frequently prescribed is for application to the precordium in cases of acute precarditis or cardiac disorders associated with marked palpitation. It must never be forgotten that its excessive use may produce

toxic symptoms; this warning is specially important when any preparation of bellodonna is being applied to the breasts of a mother who is still suckling her child.

Iodine is mainly employed in the form of the tincture or pigment. When absorption of the drug by external means is desired, it is best given in the form of an ointment, of which the most popularly used are ung. iodi denigrescens and iodex. These preparations are particularly useful when dealing with subacute forms of inflammation, such as inflamed lymphatic glands, chronic bursitis, tenosynovits and arthritis, their action being increased in some and often produce blistering of the skin. No preparation containing iodine should be applied to abraded surfaces.

The relief of acute local congestion

The most efficacious form of treatment is simply the application of cold in some form or another. Such an application should be administered early, before any large effusion has had time to develop. It is also well to remember that this form of treatment is far more efficacious in acute congestion of traumatic origin, than in infective or inflammatory conditions.

The relief of deep congestion

Poultices and packs are of special value in acute inflammatory conditions associated with deep congestion or effusion, as in lobar pneumonia and intra-abdominal abscess; but to be successful they must be correctly applied, the application must be continuous (one poultice not being removed until the new one is ready to take its place), and they must be changed before losing their heat.

Cataplasma kaolini has to a large extent taken the place of poultices or packs. It is, however, often rendered ineffective by incorrect methods of application. It should first be heated (in its own container) in a pan of boiling water, until it is considerably hotter than required, thus allowing for the loss of heat during spreading. It should then be laid on thin calico or butter muslin by means of a heated spatula, to a thickness of not less than 3/4th inch; too often it is

spread more like butter on bread. Lastly it should be covered with a thin gauze, and so applied to the skin (with neither vaseline nor oil intervening), being held in position by means of a suitable bandage after being well covered with gamgee tissue or cottonwool. It will require changing every eight to twelve hours.

(*b*) *Pigments and plasters* act by what is commonly termed counter-irritation. This form of application is more suitable in the chronic types of local congestion, e. g., fibrositis chronic tenosynovitis, bursitis and arthritis, than in acute inflammatory conditions. The patients usually employ for this purpose either liquor iodi fortis (10 per cent) or liquor epispasticus.

The plasters most commonly used for purpose of counter irritation are either emplastrum sinapis (mustad plaster), emplastrum aleefaciens or emplastrum cantharidini.

(*c*) *Stimulating liniments and rubefacients.* Camphor capsicum and turpentine are the most common ingredients. They are of particular value in chronic forms of inflammation affecting the skeletal system, such as chronic fibrosists, lumbago, and myalgia.

The Alleviation of Neuralgic Pain.

The active principle in such paints is usually menthol or methyl salicylate (synthetic oil of wintergreen) or a combination of the two.

As an alternative to these paints analgesic liniments may be applied. They are best administered by being thoroughly warmed and then rubbed in liberally and lightly, the affected part being wrapped up loosely in cotton-wool or gamgee tissue. The linements which are most serviceable for such cases are lin. aconiti oleosum (B. P. C,) better known as lin. A. B. C.

The use and abuse of Drugs in Cardiovascular conditions.

(*From the 'Practitioner' April 1937.*)

Rheumetic Heart Disease and Salicylates

The effects of Salicylates are produced rapidly with adequate dosage; and dosage originally aimed at was ten grains an hour, 240 grains a day.

It is possible to give a child of ten years 240 grains of sodium salicylate every day for months, without any great difficulty or any disadvantage; indeed, the child and the carditis improve on such a dosage. But the child must be kept at rest; must be fed on a low protein diet (at least at the beginning of treatment) —milk, vegetables, fruit, bread and butter; must be given adequate quantities of fluid; must have a daily action of the bowel; and must take twice as much bicarbonate of sodium 480 grains. The best way to prescribe the salicylate is in doses of 20 grains two-hourly with 40 grains of bicarbonate. Some syrup and flavouring reagent.

Stimulants and Sedatives

As a rule organic cardiac defect benefits more from a sedative than from any stimulant.

Acute pulmonary oedema is one of the most dangerous and alarming of medical emergencies, and the condition calls for prompt and energetic treatment. The attack usually comes on at night, sometimes after an unwonted exertion or too large a supper, or as a sequel to a hot bath, or like a bolt from the blue for no ascertainable reason. The symptoms are breathlessness, with copious frothy, white or blood stained expectoration. There may be palpitation, but as a rule the patient feels that suffocation is his danger. He is intensely distressed both by his fears and his dyspnoea, and, unless the attack is of brief duration and minor severity, he sends for his doctor. The immediate administration of morphine and atropine will produce a rapid amelioration of symptoms and a speedy return to the normal state; but if the attack has lasted rather longer before assistance is demanded, or if some time has elapsed before the doctor can be obtained, it may be much more difficult

to cope with the attack, and even the first attack may prove fatal if untreated. A further measure which is most helpful is bleeding, and this should be resorted to if the patient is cyanosed and the peripheral veins are distended. As a rule, a quarter of a grain of morphine and one hundredth of a grain of atropine are adequate, but this dose should be repeated if it appears to be ineffectual within twenty minutes of injection. The common error in treating such attacks is to give stimulants such as injections of adrenaline, camphor in oil, strynine, ether, brandy, or some other reputed cardiac stimulant. One and all are useless and, in as much as they postpone correct treatment, harmful.

Relief of pain

Diamorphine or heroin, which is about twice as effectual as morphine in relieving pain, is unsuitable in cardiac cases because it is mainly excreted by the kidney and reduces renal efficiency, although it does not produce constipation. More over, the risk of addiction is even greater than with morphine, and the respiratory centre is more powerfully depressed. Morphine is an almost perfect cardiac sedative. It has the disadvantage of producing constipation. For the dyspnoea and wakeful restlessness of chronic or subacute cardiac failure no sedative is quite so good. It need not be given by injection and often seems to act better when given by mouth; From five to 30 minims of the liquor morphine hydrochloride (30 minims contain ¼th grain) with 30 minims of syrup of ginger should be given at night in a small quantity of water, and may be repeated in four hours if necessary.

Digitalis

Withering used the powdered leaf, giving from 1 to 3 grains twice a day or, if a liquid medicine were preferred, a recent infusion of the powder, infusing a drachm of dried leaves in a pint of water and giving 1 ounce as a dose.

There are now on the market many preparations of digitalis; some useful, some expensive, but none of them better than the powdered digitalis leaf. It is common to find much too small a dose given—5 minims of the tincture three times a

day is regarded as a standard dose. A rapid digitalization can be secured by giving ½ mg. of digoxin (1/120 grain) or strophanthin 1/120 grain or ouabain 1/120 grain intravenously. Occasionally, strophanthin will act in cases where digitalis fails; this is specially in patients who are thyrotoxic, but even here it is not common. Since strophanthin is rapidly excreted and has much less prolonged action on the heart, the dose must be repeated often–at least four times a day to maintain adequate effect, and must be given intravenously.

It is a safe rule that when digitalis does not produce an improvement an irregularity is probably not auricular fibrillation.

Quinidine Sulphate

It is true that the majority of cases of auricular fibrillation can be converted to normal rhythm by quinidine, but many patients will not maintain the normal rhythm for more than a short time. Quinidine treatment should be confined to those patients who have as it were "fibrillated by accident". When the heart is not grossly enlarged, when there is no evidence of gross myocardial defect, then quinidine should be tried if the heart is in auricular fibrillation. There are three risks in the treatment:- (*a*) That the patient may have idiosyncrasy to quinine; (*b*) that there may be a clot in the inactive auricle which will become an embolus when normal rhythm is restored; and (*c*) that, at the moment when the heart changes rhythm either from fibrillation to normal sequence, subsequently a relapse to fibrillation may occur. The heart rate is controlled by adequate digitalis, and when this is effected a single dose of 3 grains of quinidine sulphate is given. This may be prescribed in a cachet, but a slightly acidulated mixture is preferable and more certain in action. At least twenty four hours are allowed to elapse to ensure the absence of any intolerance, indicated by headache, diarrhœa, a rash of erythematous type, nausea or dizziness-and then the 3 grain dose is given three times at intervals of two hours. Next day the dose is given by times at two-hourly intervals, and on the fourth day seven times. Thereafter the dose is increased by 6 grains a day, doubling some of the doses

so that either 3 or 6 grains are given two-hourly. It is not usually necessary to go beyond 36 grains in twenty-four hours, and indeed it is unwise to do so because such doses are toxic, and cases of auricular fibrillation which require such large doses seldom maintain normal rhythm for long after treatment. After the restoration of normal rhythm the patient should be kept at rest for a few days and the cachets of quinidine should be given three times a day. Should the irregular action recur the dose of quinidine should be given two-hourly again.

The use of nitrites.

Drugs play a small but important part in the treatment of angina. The underlying factors must be determined as accurately as possible, psychogenic and digestive as well as circulatory disturbances being investigated and controlled if treatment is to be effectual. For coronary occlusion rest is the great essential; pain, which may be agonizing, must be countered by morphine; and the dose may be repeated hourly as long as the patient is conscious and uncomfortable. The usefulness of digitalis is rather doubtful in such a condition unless auricular fibrillation supervenes, and nitrites are generally ineffective. This fact has been used in making the diagnosis of coronary occlusion, for anginal pain usually responds readily to nitrites and when it is continued in spite of nitrites an actual occlusion of a coronary artery should be suspected. Amyl nitrite acts most rapidly as it is inhaled, but its effect is very profound and the diminution of blood pressure may be too great, especially in those who have raised pressures. The most generally useful is nitroglycerin-trinitrin in doses of 1/100 of a grain. The pharmacopeial tabella is of chocolate (5 grains). These tablets should be chewed and not swalllowed since the the absorption from the mouth is faster than from the stomach.

A tablet may cut short an attack of pain, but it must be most strongly impressed upon the patient that it is better to void doing those things that are likely to produce the pain, and

that the wise patient will so order his life that he does not incur the discomfort and will consider that the pain is a warning that he has over stepped the safety line. The organic nitrates—erythrol tetranitrate and mannitol hexanitrate have similar effects; being relatively insoluble their dose is larger and their action delayed and prolonged.

Heart Failure

Drugs play no small part; but they must be combined with rest, purging, and all the measures calculated to secure the co-operation of the patient. Sedatives have their usefulness; digitalis has been mentioned, and there remain a number of diuretics which, act by removing fluid from the tissue. Digitalis alone, or combined with blue pill (as Guy's pill) may produce a marked diuresis. A simple acid salt such as ammonium nitrate is a useful diuretic—dose 15 grain five or six times a day. This is as effective as ammonium chloride is not so nauseous, and has the advantage of not raising the body chlorides (usually high in cases of oedema) Urea itself is an excellent diuretic. It is best ordered as 10 grammes with 120 minims of syrup of lemon made up to 2 ounces for a dose, and taken with water or soda water at meal times, thrice daily. Caffeine, 4 or 5 grains, may be combined with either of the foregoing, or may be prescribed as tea or coffee which everyone knows as diuretics. It is said that caffeine and its salts are best avoided in restless sleepless patients, and especially in those with raised pressures, but personal experience has seldom supported such a suggestion.

The most powerful diuretics yet produced are organic mercury compounds. After a preliminary course of ammonium nitrate for at least three days, the selected mercury salt should be given by intravenous injection.

Whichever salt may be used, the injection is best made in the morning so that by night the diuretic effect may have diminished and sleep be possible. It will often be advisable to repeat the dose for two or three days. or injections may be given on alternative days for prolonged periods. Some hundreds of injections have been given over periods of as long as five years without deleterious results.

The Trichinopoly District Medical Association.

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(Affiliated to the Indian Medical Association.)

A monthly meeting of the above Association was held at 5 p.m. on Saturday the 10th June 1937 when about 30 members were present. Drs. K. Bakthavatsalama and M. K. Pathmavathy were 'At Home' to the members. Dr. Mrs. D'Costa, L. M. & S., presided.

After 'Tea' there was demonstration of clinical cases in which many members took part.

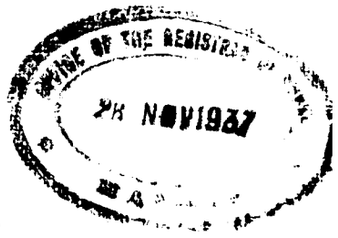
Then Dr. N. C. Subramanyan, B. A. M. B. B. S., Hon. Tuberculosis Specialist, Government Hospital, Trichinopoly delivered an interesting lecture on 'Pulmonary Tuberculosis.' There was interestiug discussion after the lecture.

With a vote of thanks to the Lecturer, the Chair-woman and the Hosts and the Manager of the premises the meeting terminated.

TRICHINOPOLY,
2—7—1937.

R. KALAMEGHAM,
B.A.M.B.B.S.,
Secretary.

THE MISCELLANY



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AUGUST 1937

Sciatica and Lumbago

By

SIR WILLIAM WILLCOX,

(From the 'Clinical Journal' July 1937.)

The late James Collier, one of our leaders in neurology, defined sciatica in a more modern way as an interstitial fibrosis of the sciatic nerve, and I think that is the best definition. He said that other varieties of sciatica-pain resulting from pressure on the nerve-roots or from other lesions of the nervous system might be included under the term "Scondary sciatica", but primary sciatica was interstitial fibrositis of the sciatic nerve.

In Price's Text-Book of Medicine I wrote the article on Lumbago, and described it as a form of fibrositis. "Lumbago" may be a primary condition, and that is what we usually mean when we talk about lumbago.

Aetiology

Now let us consider the aetiology of these two complaints. I am going to deal with the subject in a broad way, because both are forms of primary fibrositis, so that we can consider many of the things together.

These diseases, particularly lumbago, are commoner in men than in women.

Whenever you see a case of lumbago or sciatica, or arthritis, make sure of your diagnosis. Then ask yourself, why has this patient sciatica or lumbago? Try to ascertain the cause.

The aetiology of lumbago and sciatica, we can take together. First consider, is there any infective cause? Has the patient any focus of infection? Specific foci of infection include gonorrhoea, syphilis, tuberculosis, brucella fever-bacillary dysentery, typhoid, etc. These are diseases of which we know the causal organism, and which will give rise to fibrositic rheumatism. Then there is the non-specific group. Search for foci of infection by clinicaly examining the teeth and having them X-rayed, by examining clinically the sinuses and having them X-rayed, by examining the tonsils and deciding whether they are infected, and by searching for any infection of bowel, bladder, or urogenital tract or any pelvic disease. The theory of infection as a cause of rheumatism is now generally accepted; but do not imagine that I regard infection as the only cause of rheumatism. It is, however, the most important cause.

The other causes which you must review are physical causes, such as strain, cold. Living in damp houses is a common cause of chronic rheumatism and fibrositis, as is also the wearing of insufficiently warm clothing. There is also posture; people who have to work for long periods in cramped attitudes suffer undue strain and so may develop arthritis, or lumbago or sciatica.

Then there are metabolic causes: glycosuria is commonly associated with sciatica and with lumbago; Renal conditions are important; one should ascertain whether there is good renal function. There may be gout if the blood uric acid is high; such patients are liable to have sciatica or lumbago.

There may be dietetic errors. Another cause which you must remember is trauma. Sciatica may result from an injury or a twist.

The constitution or diathesis is another factor.

Next there are circulatory conditions. If these are subnormal, they are liable to give rise to fibrositis, lumbago, sciatica.

There are also important endocrine factors: Another important factor which looms large in everything we deal with nowadays is the psychical factor.

Symptoms and Signs

Primary sciatica may come on acutely, with sharp pain in the buttock, and running down the back of the leg to heel Or it may come on insidiously, the pain getting daily worse. In sciatica there is much pain and spasm of the muscles of the buttock and loin, and sometimes there is spinal curvature, due to the protective spasm of the muscles. The patient is debilitated and depressed, often irritable.

Ascertain whether there is sciatic nerve tenderness. If you feel the postero-superior spine of the ilium and the tuberosity of the ischium, and press the spot at the junction of the upper and middle third of the line joining these points, there may be tenderness. This is one of the commonset sites of tenderness in sciatica There is the stretching test. You have the leg extended, and if you flex that extended limb you may elicit pain in the course of the sciatic nerve distribution. Next there is the trunk flexion test. If you make the patient bend his back there may be pain in the sciatic nerve, if he has sciatica. The next is the Gowers test. Sir William Gowers advised to let the patient sit in a chair, and as he bends a little forward you press sharply on the popliteal space. That stretches the sciatic nerve and elicits pain.

Those are very reliable tests. Make sure that the patient has not arthritis of the hip; satisfy yourself that the hip movements and the spinal movements are good.

In sciatica the knee-jerk is often increased, there is a tingling and numbness, hyperaesthesia and paraesthesia down the limb to the heel. The Achilles-jerk is usually lost, but the plantar reflex is normal.

In a case of sciatica you always must exclude any causes other than primary sciatica, especially if the case is long-standing. A common mistake is made with regard to the sacro-iliac joint.

Lumbago sometimes occurs very acutely; But usually it comes on gradually. You must be careful not to be satisfied

with a diagnosis of lumbago when there may be some other condition causing the pain.

With regard to other methods of examination let me insist on the importance of always having an X-Ray examination made in any case of continued lumbago or sciatica

Bacteriological tests are also important in long-continued cases.

Then there are bio-chemical tests. The blood-uric acid will tell you whether there is a gouty focus; the blood—urea test will tell you if the kidneys are functioning properly; examination of the urine will show if there is any infection in it; or kidney disease; and sometimes the blood calcium test is useful as indicating whether there is any—as in some of these cases there may be—parathyroid abnormality.

If you get such a case early the important thing is to keep the patient absolutely in bed and simply apply heat, such as infra-red irradiation; or antiphlogistin. Massage, Faradism, or ionization, etc., in the acute stage often do harm.

In the way of medicines, give something which will relieve the pain, suchs as phenacetin, aspirin. Give 5 gr. of each of those, with a little caffein, as they are depressant drugs. One remedy which is very helpful is codein–¼ gr. codein phosphate given every 4 hours with aspirin and phenacetin. Let me warn you, in sciatica, especially if the patient is a woman, and highly strung, never to give morphia, as there is great danger of morphia addiction. I also advice you not to give barbiturates; they cause somnolence, they do not act as pain-relievers; they make the patient depressed and miserable.

There are two special methods of treating cases of sciatica which do not respond to the ordinary methods:

(1) X-Ray treatment; *i.e.* exposure to a light dose, penetrating just sufficiently to reach the affected part of the nerve. Treatments are given twice weekly for 2 or 3 weeks.

(2) The other method is to inject the sciatic nerve with 2 or 3 c. c. of 2 per cent novocaine to ease the local pain, and then inject 50 c. c. of sterile normal saline.

Infantile Cirrhosis of the Liver

Etiology.

Starch or rice theory.
Pure cow's milk „
Patent Foods „
Alcoholic theory in the parents
Theory of the Pathological mother
Castor oil and frequent purgatives theory
A-Vitaminosis theory
Starvation theory.

Some think the condition a symptom complex and others separate clinical entity.

Pathology and Morbid anatomy. Varying degrees of enlargement of liver and *Signs and symptoms.* Till the 6th month the child is appearently healthy, and jovial. Slight enlargements noted by the parents or the next door granny. Gradually the whole of the abdomen becomes markedly prominent. The child loses weight, becomes fidgety and fretful. There is a persistant rise of temp all the 24 hours. The apetite is lost in some cases but in some the apetite is voracious. The skin appears to be pale the conjunctiva suffused. Bowels constipated and only purgatives will move. Urine scanty with plenty of deposit. Fever continues, abdomen now becomes more prominent with fluid. Jaundice develops and in the course a few weeks it deepens. General anasarca supervenes with well marked ascites. Motion from the very begining is scanty and white due the absence of bile pigments. The liver that could be felt at the umbilicus or down below slowly recedes and thus it gives a false hope to the parents and false credit to some medicines and men. With the deepening of the Jaundice, wellmarked general anasarca the poor child makes its exit from the world by some inter-current diseases such as broncho pneumonia, acute colitis with malena, heamatemisis or heamoptosis etc.

Differential Diagnosis. To be diagnosed from Rickets, Kala-azar, Malaria, Ch. Amoebiasis, Cong. Syphilis. Non-Pathogenic enlargements etc.

Prophylactic treatment. Milk Food of the infant from the early stage.

Treatments in vogue.

Mercury compound.

Kalmegh,

Memoradica Charentia juice.

Vitamins in different forms,

Calcium and Liver Extract,

Jammii's, Pilla Pappaya Pathradu's, Kumbakonam Ramaswami Koil Barber's, etc.

Author's treatment.

Pfeiffer's estimate of milk secreted by an average mother perday (a guide to artificial milk feeding).

End of the 1st week	10 to 16 oz per day
During the 2nd week	13 to 18 oz
3rd	14 to 24 oz
4th week	16 to 26 oz
5th to the 13th week	20 to 34 oz
4th to the 6th month	20 to 28 oz
6th to the 9th month	30 to 40 oz

Approximately so much grammes of food is necessary for the baby at different periods of life. (i.e.)

291 gms, 549, 590, 652, 828, 980. one ounce of milk is equal to about 30 grammes.

(From a lecture on "Infantile cimhosis of Liver" delivered by Dr. A. Krishna Iyer at the meeting of the T. D. M. A. on 24th July 1937).

The Development of Acute Anemia during Sulfanilamide Treatment

BY

A. M. HARVEY, M.D., AND C. A. JANEWAY, M.D.

(From the Journal of the American Medical Assn. July 3rd 1937.)

The use of sulfanilamide (para-aminobenzenesulfonamide) in the treatment of various bacterial infections, notably those caused by the haemolytic streptococcus, is rapidly becoming widespread.

Certain minor toxic effects of the drug have been noted; namely, a depression of liver function, as determined by the bromsulfalein excretion test, fever, cyanosis and mild acidosis; but thus far no toxic effects of alarming proportions have been described in the literature.

However, within a few weeks three cases of severe hemolytic anemia were observed in the wards of this hospital, two occuring during the treatment of streptococcic sore throat and one during the treatment of meningococcic meningitis with sulfanilamide.

Comment

Three instances of severe hemolytic anemia appeared during the course of infections which were treated with large doses of sulfanilamide (para-aminobenzenesulfonamide). That the drug was directly responsible for the development of these anemias cannot be proved conclusively, but in view of the facts it is certainly a reasonable assumption.

Other conditions that produce an acute anaemia of this type have beenfarily well ruled out. These patients were not suffering from hemolytic jaundice, sickle cell anaemia or paroxysmal hemoglobinuria.

In the three instances the patient recovered after the medication was stopped and transfusions of citrated blood were given.

Two of the patients were given a small dose of the drug after recovery with no change in the blood picture.

Some Recent Advances in the Treatment of certain conditions of the Anus, Rectum and Colon

By

Lionel E. C. Norbury, O.B.E.M.B.B.S., F.R.C.S.

(From the 'Clinical Journal' May 1937.)

Piles

The injection treatment of piles dates from the year 1869. To obtain the best results suitable cases must be selected and the correct technique must be employed.

The objects of the modern treatment are :—

(1) To produce a sclerosis in the submucous tissue which will draw up and fix the lax mucous membrane.

(2) To stop bleeding by obliteration of vascular capillary spaces.

The injection is given *above* the pile, immediately above the ano-rectal ring as seen through the proctoscope. The solution originally introduced by Albright, a 5 per cent solution of phenol in almond oil, is used. Three or more c.c. are injected into the submucous tissue above each pile. It is often useful to disregard the piles as such, and to divide the lumen of the bowel just above the pile-bearing area into quadrants, injecting one quadrant at a time with three or more c.c. of the solution at a sitting.

The result should be the formation of a localized thrombosis in the sumucous layer, felt as a leathery induration a few days later. In this way four treatments will be necessary at about intervals of 7 days.

The old solution of 20 per cent. phenol in glycerine and water still has its use in cases where vascular tissue remains below the area of submucous induration. An injection of 3 or 4 minims directly into this portion of the pile often completes the cure. External piles or tags shoud never be injected.

Piles suitable for treatment by injections are uncomplicated internal piles which do not markedly prolapse on straining. Those which are associated with large external tags of skin are unsuitable.

Fissure

The use of A.B.A., (a 3 per cent. solution of anaesthesin with benzyl alcohol 5 per cent. and ether 10 per cent. in sterilized olive oil) is a distinct advance. It is given as a subcutaneous injection beneath the base of a superficial fissure and into the sphincter itself. The injection must be made subcutaneously and not into the skin, otherwise sloughing will occur. The dose is from 5 to 10 c.c. Treatment with A.B.A. is not of much use in a chronic fissure where the base is firmly adherent to the external sphincter.

Peri-Anal Suppuration

All peri-anal and ischio-rectal abscesses should be freely incised and drained by cruciate incisions as soon as diagnosed.

Fistula

The subcutaneous sphincter may be cut with impunity, and if necessary in several places. The internal opening of a complete fistula is usually between the superficial and deep portions. The subcutaneous and superficial portions may be divided without risk of incontinence of faeces.

The fact that some 10 to 15 per cent. of all fistulae—in—ano are tuberculous in origin is important. A systematic microscopic examination of the excised fistulous tract is essential, as in certain cases the prognosis and rate of healing can be more readily gauged.

A tuberculous fistula has either one or more pin point openings on the skin, usually situated anteriorly.

Pruritus Ani

Recent advance in the treatment of this troublesome condition is along the lines of local injections.

Subcutaneous injections of A. B. A. 10 c.c. at each treatment (30 c.c. in all) is often most effective in relieving the intolerable itching sometimes for a long period.

The Defficulties of Pharmaceutical Industry in India

By
RAJ MITRA BHAILALBHAI D. AMIN, B.A., M.S.C.I. (LOND.)
Managing Ageut & Director.
The Alembic Chemical Works Co., Ltd.
Baroda, Bombay, Madras, Calcutta.

If there is any industry in India which does not receive the slightest encouragement from the Government of the Country, it is the Pharmaceutical industry, though by general admission this industry is primarily based on public health which should be the first concern of Government. I have been connected with this Industry for nearly thirty years now and I may state from long personal experience that the attitude of Government has been positively discouraging.

The Alembic Chemical Works Co. of which I happen to be the Managing Director has specialised in the manufacture of spirituous pharmaceutical preparations and I desire to mention here some of the difficulties we have had to contend with from the start to establish ourselves firmly in the field. The policy of Government has been very unsympathetic all along; and it is only by a miracle that an industry can servive against it.

The first difficulty of an indigenous manufacturing firm arises from the prejudices of Government Medical Officials. The higher officials have been mostly Britishers and they started with the belief that Indians could never be able to manufacture medicines of the necessary quality and purity. From the very first, therefore, they insisted upon the use of imported medicines only in hospitals and dispensaries, and that policy was systematically followed to the detriment of the Indian Industry.

It was indeed a long and uphill task for the indigenous industry to convince these Government Medical officials that reputed Indian firms were capable of producing medicines of high quality, and my firm the Alembic company, though it spent continuously large amounts on research to perfect the products and secured the best testiminials from the highest authorities, was put as it were in the black list of Government for a considerable time.

The position even now has not entirely cleared. Under one pretext or another, the Government hospitals are purchasing all their requirements of medical stores from the Government Medical Stores, instead of from private manufacturers of proved repute. Even in the case of Non-Government public and charitable dispensaries and hospitals, whose purchases are controlled by Government Medical Officers systematic efforts are made to give preference to manufactures produced by the Government Medical Stores.

The Alembic Company has been agitating long for the removal of this disability and succeeded to some extent after a great deal of effort. Rules are framed continuously by Government to put obstacles in the way of manufacturers and restrict their market by monopolising the market controlled by Government for Government Medical Stores. The latest instance of this kind is the Rule framed by the Bombay Government compelling all charitable hospitals and dispensaries to purchase their requirements of narcotic medicinal drugs from the Government Medical Stores only.

The Government Medical Stores was started years ago by Government for the manufacture of medicines of various sorts, and in the early stages when there were practically no private manufacturers in India it did fulfill a purpose. But as private industry grew and developed, there was less and less reason for the Government to continue their venture. The Indian Drug Enquiry Committee which went into this question during the years 1930 and 1931, clearly recommended that Government should purchase their stores from the private manufacturers and should steadily restrict the activities of their own enterprise. But this recommendation is observed more in the breach than in the observance.

It is interesting to note that because Government Medical Officials were prejudiced against medicines manufactured by Indian firms, private medical practitioners for a long time have laboured under the same prejudice. No industry can survive

unless it finds outlet tor its products, and as long as such prejudice exists against Indian-made products, the Indian industry has no hope. The Alembic Company has had to pass through severest times and the hardest stresses, and has been fortunate enough to servive for special reasons. Who knows how many firms with the best prospects and deserving success, have gone down under these difficulties ?

This then is one aspect of the question and every new enterprise in the pharmaceutical industry will have to contend with it. But even if this prejudice of Government is overcome, there remains the excise policy of Government which plays havoc and has been the source of the chief troubles of the industry. I shall explain what I mean.

The Excise policy of Government was originally framed to apply to potable drinks. The manufacture of spirituous medicines as such did not exist at the time. But even after the industry grew, the same policy is applied to spiritnous medicines also as if they are potable drinks.

The excise policy, when it is applied to spirituous medicines should undergo material modification. The first principle to be observed is that the excise duty on these spirituous medicines should be as low as possible. If it is high, medicines of standard quality and the requisite strength are rendered costly and are therefore beyond the purchasing power of the people. They are thus driven to use inferior and adulterated medicines because they are cheap. Traffiction in such adulterated medicines has increased greatly of late, in this country, and public health has suffered.

Excise is a provincial subject and provincial Governments have not given sufficient attention to this question. Some of the provincial Governments, for example the Bombay Government, have levied high excise duty on a large number of spirituous medicines and have thereby taken them beyond the consumption of ordinary people. It is generally held that the excise duty on spirituous medicines should not exceed Rs. 5/- per proof gallon but it is as high as Rs. 25—10—0 in Bombay.

Then in regard to the excise restrictions on the transport and movement of these spirituous medicines. As each provincial Government has its own set of excise rules, the transport and movement of spirituous medicines between province to provice is not free but is governed by a strictly enforced system of import permit. That is to say, no man can import medicines from one province to another without first securing an import permit from the Excise authorities of his province, and for securing this permit he has to prepay the excise duty on them by himself stating in the application the proof strength and spirit content of the articles he wants, which it is hardly practicable for him to do. Moreover, the consignments are verified at the place of destination. The whole procedure is very vexatious and dilatory and forms the greatest impediment to business.

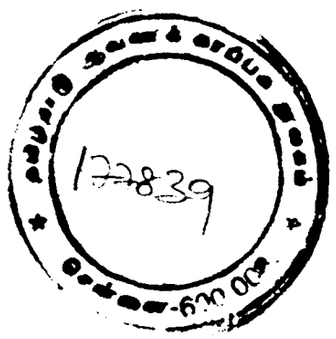
In this lies the greatest check to the industry. Compare with this, the treatment given to the products imported from overseas. Once the tariff duty is paid on them at the port of entry, they can move freely throughout India. Our own indigenous products must enjoy a similar privilege and must be put on the same footing as the imported products.

I have always held that with a view to achieve this object, the excise policy regarding the spirituous medicines must be uniform throughout India, and after trying all constitutional methods with the provincial Governments, I finally approached His Excellency the Viceroy, Lord Linlithgow with an appeal to take the matter in hand and bring about uniformity in excise policy. I also submitted to him a comprehensive Memorandum on the Industry discussing its needs and difficulties.

The wheels of Government are moving very slowly, and continuous efforts have still to be made. But I am not a man to be disappointed and to give up the situation as hopeless. I have passed through worse times and seen light, and I am sure we shall similarly see light as we persist in our endeavours. The fruits of the agitation I have been carrying on are slowly becoming visible.

My only regret is that though this is a general question affecting the whole of the industry as such, I am not getting co-operation from others, and I have to fight as it were, single-handed. If all those engaged in this great industry were to combine and make concertsd efforts, success will not be long in coming. But while all others equally interested in the industry stand aside, it is indeed an uphill task for one man or one firm to stand all the stress and the strain of the mighty effort that alone can bring the goal nearer day by day.

God willing, we must succeed, sooner rather than late.



THE MISCELLANY

THE TRICHINOPOLY DISTRICT MEDICAL ASSOCIATION
REGISTERED
Affiliated to the Indian Medical Association

Vol. IV | SEPTEMBER 1937 | No. 9

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MISCELLANY

OF

The Trichinopoly District Medical Association

(REGISTERED)

SEPTEMBER 1937

Investigation of Cases of Obscure Fever.

By

PHILIP MANSON-BAHR, D. S. O. M. D. F. R. C. P.

From the 'Practitioner' August 1937.

DIAGNOSTIC STEPS.

Complete Physical Examination of Patients.

Tongue furred in most bacillary infections—remarkably clean in protozoal diseases, malaria, typansomiasis, and Kala-azar.

Central white fur in undulant fevers. Dense fur in tonsillar, dental, nasal and sinus infections.

Mouth: Pallor of mucosa in malaria and other blood diseases.

Tonsils must be examined for evidence of chronic streptococcal or other infection.

Sinuses: Transillumination of the antra and frontal sinuses whenever necessary.

Lymphatic glands. Enlarged in tuberculosis, sepsis, trypanosomiassis (cervical), blood diseases (Hodgin's), syphilis, and bubonic plague.

Generalized lymphatic enlargement:—Syphilia, lymphogranuloma inguinale.

Splenomegoly: **1st Degree.** Sepsis, malaria (not in early infections). Infections with salmonella group, endocarditis, undulant fevers, relapsing fevers, trypanosemiasis, pernicious anaemia (occassionally).

2nd Degree.

Malaria, kala-azar, miliary tuberculosis (some-times), splenic anaemia, Bacillus Coli infections, acholuric jaundice.

3rd Degree.

Septicaemia, splenomedullary leucaemia, leucocythaemia. Enlarged liver. Malaria (chronic), kala-azar, hepatic amoebiasis, syphilis, carcinomatosis, suppurating hydatid, actinomycosis, pulmonary tuberculosis (occassionally) ascending pyelophlebitis and cholangitis, endocarditis, Weills diseases.

Hepatic tenderness :—Cholecystitis, amoebic hepatitis.

Abdominal deep tenderness :— Intestinal amoebissis, acute colitis, appendicitis, diverticulitis—with abdominal symptoms—abdominal filariasis.

Renal tumours or tenderness :—Perinephric abscess, renal abscess, acute pyelitis, renal calculus, renal tuberculosis.

Orchitis or epididymitis :—Filariasis (F. bacrofti), gonorrhoeal epididymitis. B. *coli* epididymitis.

Pulmonary signs and symptoms:—Acute bronchitis, influenzal bronchitis; pulmonary tuberculosis, hilum phthisis, pulmonary abscess, bronchiectasis, pulmonary amoebiasis and pulmonary signs secondary to liver abscess.

Cardiac signs :—Endocarditis, rheumatic fevr—haemic murmurs in blood diseases.

Value of Laboratory Examinations.

EXAMINATION OF URINE:—Urobilinuria-important in malaria especially, and may indicate a recent rigor, even in the absence of parasites.

Pus cells:—Important-may indicate urinary tuberculosis; but more usually B. Coli infections.

Red Blood Cells often found in acute B. Coli infections, may indicate a subacute nephritis. In small numbers suggestive of renal calculus, and in the presence of characteristic eggs, *Bilharzia haematobia*.

Organisms :—The most frequent are *Bacillus coli* or its subvarieties and streptococci—the cause of prostatis, cystitis or

pyelitis. Search for the tuberculosis bacillus should never be neglected.

EXAMINATION OF BLOOD:—Thick and thin blood films for malaria parasites when there is any probability of their presence.

Leucocyte count. One of the most valuable auxiliaries to diagnosis, should never be omitted. A leucocytosis may often serve as a guide to correct diagnosis, especially in suspected cases of hepatic abscess. In hepatic suppuration a moderate degree of leucocytosis is met with (from 15—30,000): in pulmonary conditioned a high one, and also in acute B. coli infections of the urinary tract. Relative leucopenia may be characteristic of chronic malaria, sometimes of a salmonella infection. An absolute leucopenia (1—2,000 is diagnostic, and is almost invariably present in kala-azar. Considerable attention too must be paid to the defferential leucocyte count. As a working rule a polymorphonuclear percentage over 80 indicates a bacillary infection—70 per cent. and under a protozoal one. A persistently high lymphocytosis, in the absence of direct bacteriological evidence, suggests tuberculosis. Perhaps, on the whole, too much attention is usually paid to the value of an eosinophilia. A high persistent eosinophilia may be produced by asthma and other pulmonary states and does not invariably accompany a helminthic infection.

SEROLOGICAL REACTIONS:—The agglutination test is still of diagnostic value is salmonella infections, especially in the typhoid-paratyphoid group. It is of the utmost value in obscure brucella infections (undulant fever group), and the value of repeated agglutination tests in doubtful cases must be emphasized. The serum-globulin test (formolgel reaction of considerable assistance ih the diagnosis of kala-azar. The Wassermann and Khan reactions should never be omitted.

Vanden Bergh reaction: This may be of great assistance, especially in gall-bladder infections, and in diagnosis of obscure haemolytic states, as in Weil's disease but it may lead to

The Development of Acute Hemolytic Anemia.

During the administration of sulfanilamide (Para-Aminobenzenesulfonamide)

By
A. M. HARVEY, M. D.,
C. A. JANEWAY, M. D.,

The use of sulfanilamide (para-aminobenzenesulfonamide) in the treatment of various bacterial infections, notably those caused by the hemolytic streptococus, is rapidly becoming widespread. Certain minor toxic effects of the drug have been noted: namely, a depression of liver function, fever, cyanosis and mild acidosis; but thus far no toxic effects of alarming proportions have been described in the literature.

However, within a few weeks three cases of severe hemolytic anemia were observed in the wards of this hospital, two occurring during the treatment of streptococcic sore throat and one during the treatment of meningococcic meningtis with sulfanilamide.

Comment.

Three instance of severe hemolytic anemia appeared during the course of infections which were treated with large doses of sulfnilamide (para-aminobenzonesulfonamide). That the drug was directly responsible for the development of these anemias cannot be proved conclusively, but in veiw of the facts, it is certainly a reasonable assumption.

Other conditions that produce acute anemia of this type have been fairly well ruled out. These patients were not suffering from hemolytic jaundice, sickle cell anemia or parexysmal hemoglobinuria.

J. A. M. A.

Habitual Abortion-Stillbirth Syndrome.

(British Medical Journal, London, May 8th 1937.)

Young is of the opinion that the evidence which has become available within recent years is consistent with the view that an important cause of the habitual abortion stillbirth syndrome is a disturbance occurring in the metabolism of pregnancy, in which a deficiency of vitamin E is involved. The evidence further raises the question as to the part which vitamin E plays in the gonadotropic-progesterone mechanism of pregnancy. Some evidence is adduced for the view that the foregoing considerations may likewise supply one with the missing factor that has been previously postulated to explain the nontoxemic recurrence of abortion, stillbirth and accidental hemorrhage in women who are subject to eclampsia and preeclampsia. This evidence is consistent with the view that major degrees of deficiency tend to interruption of pregnancy in the early months without toxemic manifestations, whereas if the deficiency is less marked the pregnancy is capable of progressing to the later months with a consequent risk of toxemia. The evidence reviewed in this communication raises the question as to the part played by diet in racial fertility and more especially as to how far changes in the consumption of essential dietetic elements may have contributed to the declining birth rate.

Protamine Zinc Insulin in Surgery.

Control of Diabetes Mellitues with.

To evaluate the action of protamine zinc insulin with respect to control of the diabetes immediately after operation, Fowler and his colleagues selected a variety of cases with regard to type of anesthetic, type of operation and severity of the diabetes. The twenty-five cases included gangrene of the extremities, cellulitis of the feet and carbuncle and other not minor conditions. The operations that were necessary in these cases included cholecystectomies, hysterectomy, amputations, incision of abscess, repair of birth trauma and tonsillectomies. The average control of diabetes in comparable patients both before and after the operations was much better with protamine zinc insulin than with unmodified insulin. Though the action of protamine zinc insulin on the blood sugar is ordinarily slower than that of the unmodified insulin, by the use of large injections it may be made to act as repidly as the non-modified product. Therefore, with respect to rapid action alone protamine zinc insulin is not contraindicated in preparation of dibetic subjects for operation, or for control of postoperative emergecies. By proper dosage the action of protaminc zinc insulin may be prolonged sufficiently by single dalily injections to permit the use of intravenous injection of dextrose after operations and also the normal rate of healing of wounds. The sustained action also appears to be sufficient to permit healing of infected tissues (Cellulitis).

Canadian Medical Association Journal, Montreal, June 1937.

Sulphaemoglobinaemia.

Its Cause and Prevention, with special Reference To Treatment with Sulphanilamide

BY

H. E. ARCHER, M. R. C. S. ENG., PH. C., F. I. C.

AND

G. DISCOMBE, B. Sc.,

It is highly probable that all drugs containing the group C-6, H-5 N are capable of causing methaemoglobinaemia and of facilitating the production of sulphaemoglobin. If any new drug containing this group is administered in large doses such complications should be anticipated. In some cases the catalytic action of the haemoglobin-sulphide reaction may be demonstrated in vitro, in other cases this may prove difficult or impossible.

Action of Magnesium Sulphate.

The action of magnesium sulpate in accelerating the production of sulphaemoglobinaemia is less easy to understand. Dr. George Graham has pointed out to us that this substance appears to increase the production of hydrogen sulphide in the gut, so far as may be judged by observation; excessive quantities of hydrogen sulphide may be produced by other purges, but the effect is more marked and constant with saline purge than with others.

Any treatment which helps the formation of liquid stool may be expected to accelerate the formation of sulphaemoglobinaemia. Liquid paraffin, since it acts as a mechanical lubricant, is the only laxative which can be relied on to prevent the formation of scybala without the risk of accerlating the appearance of sulphaemoglobinaemia. If liquid paraffin is insufficient, or if constipation is service, it may be necessary to use enemata the residues from which are rapidly absorbed, leaving the gut clean and dry.

Treatment to Prevent Sulphaemoglobinaemia.

We have therefore designed a regime for patients who are treated with sulphanilamide, in the hope of preventing or at

least delaying the onset of sulphaemoglobinaemia. We consider this justifiable since it is impossible to decide, before treatment is started, how long it will be necessary to continue with this drug; while extreme degrees of sulphaemoglobinaemia must be avoided since they may lead to dyspnoea relieved only by blood transfusion. Abstention from purges is not in our experience enough to prevent the development of sulphaemoglobinaemia.

Our aim has been to maintain the colon as free as possible from food residues and from water, so that bacterial decomposition should be reduced to a minimum. To this end the patient is placed on a low-residue diet, of calorific value sufficient to provide for the increased metabolism due to the pyrexia; only the minimum number of eggs (one or two daily are given, since these contain, for the same wheight of protein, two or three times as much sulphur as other foods.

Unless diarrhoea is present, 30-45 C. cm liquid paraffin is given daily, and all other aperients are forbidden. If constipation develops, enemata are given, while if the patient has recently received magnesium sulphate the colon should be throughly washed out.

One further precaution is desirable. Phenacetin is a most useful analgesic drug, but is itself capable of facilatating the formation of sulph and methaemoglobin. For this reason its use with patients who are receiving sulphanilamide should if possible be avoided; though if the diet is satisfactory and no laxatives are used it seems fairly safe. This may be too regorous a precaution, but is reasonable since sulphanilamide can produce agranulocytosis, and little is known of any synergistic actions in this group. In most of the cases recorded here all coal-tar drugs have been avoided, and if given the total dose is specified.

(From the Lancet, Aug. 21st 1937.)

The Trichinopoly District Medical Association.

(Affiliated to the Indian Medical Association.)

A monthly meeting of the above Association was held at 5-30 p.m., on Saturday the 18th September 1937, at the premises of the Trichy X-Rays Ltd., Trichinopoly when about 35 members were present. The Directors of the 'Trichy X-Ray's Ltd., were 'At Home' to the members and Lt. Col. N. K. Bal, I.M.S. District Medical Officer, Trichinopoly, presided.

Dr. V. Iravatham delivered an interesting lecture on 'Modern Blood Diagnostics'.

After the lecture Dr. T. V. Srinivasan, M,B.B.S, spoke on behalf of the Secretary who was unavoidably absent. He read the letter from Dr. U. Krishna Rao regarding the XIV ALL INDIA MEDICAL CONFERENCE and he requested that as many members as possible should become members of the same to make the conference a grand success.

With a vote of thanks to the Lecturer, Hosts, and the Directors of the 'Trichy X-Rays' Ltd., the meeting terminated.

TRICHINOPOLY,
21—9—1937.

R. KALAMEGHAM,
B.A.M.B.B.S.,
Secretary.

Jegam & Co., Trichinopoly.