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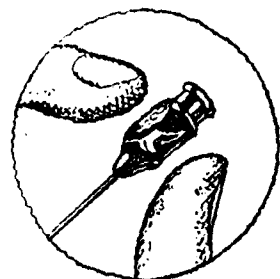
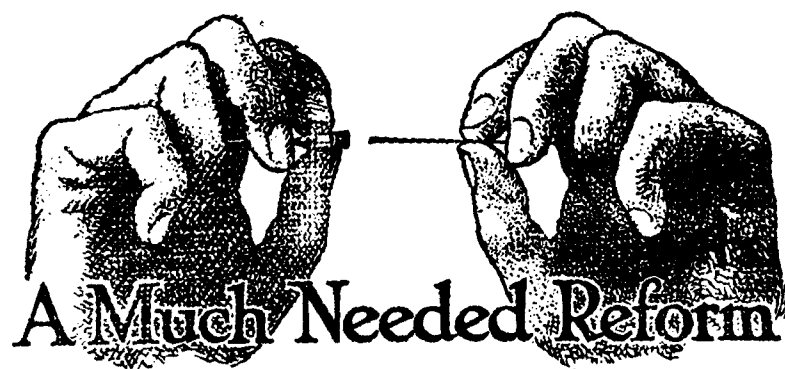
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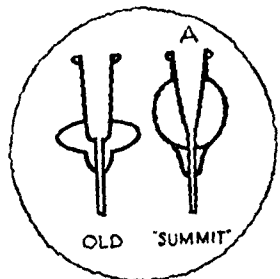


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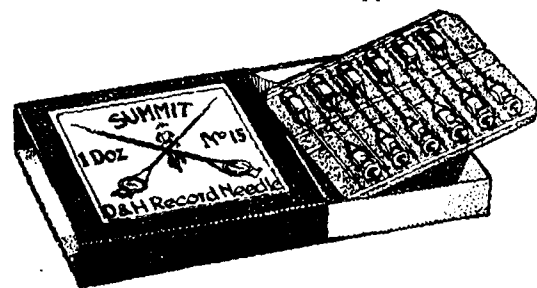
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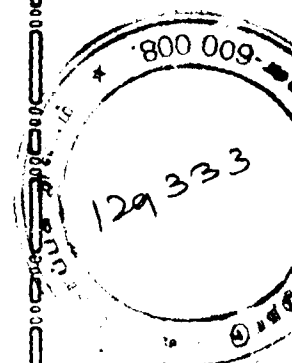
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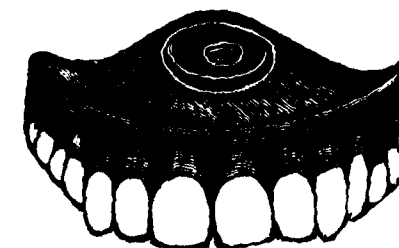
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THE MADRAS MEDICAL COLLEGE MAGAZINE.

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THE LATE DR. DAME MARIE SCHARLIEB, M.D., M.S.

(From *The British Medical Journal*).

OF THE
14 FEB 1931

THE MADRAS Medical College Magazine

VOL. X

JANUARY 1931

No. 3

The Female Sex Hormone

By Dr. J. C. DAVID, M.B., B.S.,

Pharmacology Laboratory, Edinburgh University.

Introduction.—The study of the internal secretions of the body has been a fascinating but perplexing problem. Day by day their mysteries are being gradually unravelled and our knowledge of their functions is emerging from a state of supposition to one of great probabilities, if not all round certainty. The potentialities of the research into the hormones of the gonads have always loomed large, so much so, that this field has been fully exploited by charlatans and manufacturing concerns even before their physiological and biochemical properties have been properly understood. It was Brown Sequard that originated the idea of giving injections of gonadal extracts and clinical trials have extensively taken place since his time, but the data as well as conclusions have been mostly erroneous as in the diseases and functional disorders ordinarily treated by such means, the psychological factor is predominant.

The Oestrus cycle.—The phenomena connected with disease or extirpation of gonads, male and female, are fairly well known. Out of the enormous mass of literature concerning the function and secretions of these essential organs a few facts have come out and we are now beginning to see the light. Zondek and Aschheim¹ in 1927 came to the conclusion that implantation of anterior pituitary into the immature mouse brings about precocious oestrus including the ovarian changes and that the effect is exerted purely through the ovary. Since then the fact has been established that the anterior lobe of the pituitary supplies a hormone that determines the attainment of puberty and the ovary continues the function by elaborating its own secretions. From its follicles and the follicular fluid, a hormone has been separated, which when injected into the immature or castrated animal, a mouse or a rat for convenience brings about the phenomenon of oestrus. If the ovary is

constantly elaborating 'oestrin' there should be one continuous oestrus from the onset of puberty. But it is here that the corpus luteum intervenes. The luteal hormone tends to inhibit oestrus and is, probably the cause of the cyclic changes following oestrus whether or not pregnancy follows. In addition corpus luteum is also responsible for the sensitization of the uterus for the implantation of fertilised ova, for the development of the mammary glands from the condition in which they are found at oestrus to that characteristic of the end of the luteal phase, and for the maintenance of pregnancy (Parkes³). The function of corpus luteum is later, taken on possibly by the placenta for in no other way can the presence of a large quantity of the hormone in this tissue be explained. It has also been stated that the placenta absorbs the hormone from the circulating blood of the mother so as to protect the male foetus from its action.

Thus there are two cycles, one the infertile cycle, in which the uterus of the primate undergoes a regular repeated change, the most characteristic type being that of full menstruation. Here the inactive mucous membrane has a short period of rest, soon followed by an increase in the size, convolution and secretory activity of the uterine glands, which is increasingly marked as the mucosa passes through the interval and approaches the pregravid or premenstrual stage. If this pregravid stage is balked of its object, which is the harbouring of the impregnated ovum, an abrupt regressive change takes place which consists in rapid necrosis of the so-called functional layer. The ragged, raw, basilar layer alone lines the uterine cavity and through this open wound the menstrual blood is poured out into the uterine cavity. In the fertile cycle, the stages as described to include the pregravid phase are identical with that of the abortive cycle. Because of the persistence of corpus luteum, the mucous membrane, instead of undergoing menstrual involution, continues its growth and forms the decidua of pregnancy in which the ovum is imbedded, and it continues to line the uterine cavity until the onset of labour.

Distribution of 'oestrin.'—The ovarian hormone or 'oestrin' as has been observed, is found in the follicles and in the follicular fluid. But curiously enough it has been found not only in the placenta, blood and urine of pregnant females, but also in the blood, urine and bile of males! However, the female sex hormone noted in the circulation or urine of the male is neither constant nor cyclical. This is an anomalous discovery as an antagonistic antimasculine effect upon the sex organs of the male has

been attributed to this hormone. Frank⁸ explains this by pointing out that a substance identical with this hormone has been detected in considerable quantities in almost all vegetable foods beginning with yeast and even in potatoes! Ingestion of such large quantities which are not utilised by the male cause their excretion and appearance in the blood, like bile and urine of males.

Standardisation.—Observations on the oestrus cycle of rodents have shown that the vaginal mucous membrane undergoes characteristic periodic changes which can be correlated with the different stages of the oestrus cycle. In the resting stage of the uterus the vaginal secretion consists of leucocytes and perhaps a few nucleated epithelial cells. This is followed by a smear of nucleated epithelial cells and during the height of oestrus by a smear of pure non-nucleated polygonal, faintly staining cornified epithelial cells. At the same time the uterus is distended and the animal is said to be in "rut." These changes form an admirable method of discovering the exact stage of the cycle. In order to test the efficacy of a given sample of oestrin, castrated adult female mice or rats are given injections of the substance and vaginal smears are taken twice daily. The characteristic changes of oestrus, viz., the presence of cornified cells in the vaginal smear can be detected in 48 to 72 hours. The dose that produces oestrus in 50% of, say 20 mice, is taken as 1 rat unit or mouse unit and a curve is plotted from which the strength of a sample can be read off on ascertaining the percentage of animals going into oestrus.

Practical uses of oestrin.—Frank⁸ has evolved a test for pregnancy by detecting the hormone in the circulating blood. 40 c.c. of blood are taken and worked up with Na_2SO_4 and extracted with ether. The ethereal residue is dissolved in water and injected into mice. As the hormonal level is too low for proper detection before the 8th week, the practical utility of this test is questionable. On the other hand, it is claimed that in cases of pseudocyesis and obesity amenorrhoeas, with a suspicion of pregnancy this test may be a clinching factor. In primary amenorrhoea too, patients with regular sub-threshold cycles, patients with irregular cycles and patients with entire absence of cycles can be distinguished. By means of this test, Frank was able to find that the ovaries left *in situ*, after hysterectomy continue to function and produce a blood cycle such as was present before the operation. A similar cyclic variation in the blood content of patients without vagina has enabled Frank and Goldberger to determine the feminine sex of these malformed individuals.

Assay and biological standardisation of most of the commercial extracts now placed upon the market show a woeful lack of potency and rapid deterioration of the products. Unpleasant local reactions may arise at the site of injection. By mouth the effect has been found to be 1/20th to 1/100th less than by subcutaneous route, even if the potency of the preparation be guaranteed.

The following table taken from Frank³ illustrates the absurdity of the claims of potency advanced for many proprietary preparations:—

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3. Parke Davis	... Estrogen	25 R. U.	2—0
4. Degewop	... Meuformen, old	4 M. U.	0.75 M. U.
5. Degewop	... Meuformen, new	40 M. U.	0
6. Ciba*	... Sistomensin	2 c c in mouse	0
		6 c c in rat	0
7. Schering-Kahlbaum.	Progynon	250 M. U. pro. by mouth = 0 tablet	Hyp. 15 M. U. = 1 R. U.

* I have personally assayed "Sistomensin" ciba and 1.0 c.c. seemed to have a potency of about 1 M. U. or R. U.

Numerous clinical reports are beginning to appear in the literature concerning the efficacy of the female sex hormone. The reports of Zondek⁴ and Pratt and Allen⁵ are the most convincing as the former obtained menstruation in one castrate human being and the latter in numerous monkeys. The clinical results obtained by many observers cannot be relied upon. This specially applies to the effects upon the symptoms of the artificial or spontaneous menopause, the production of menstruation in amenorrhoeas, the relief of sterility and other quite incalculable and uncontrollable effects. Amenorrhoea is such a variable symptom complex that no treatment whatever, or non-specific treatment may well be followed by the appearance of menstruation.

"If, as is to be hoped for, the future places a concentrated and valuable female sex hormone in our hands, this powerful drug will enable us to produce transient stimulation of the uterus. Upon the withdrawal

of the drug, a single menstruation should occur. The possession of a potent corpus luteum extract may enable us to control too frequent and too prolonged menstruation. On the other hand, an active anterior lobe pituitary preparation should enable us, when it has been successfully elaborated to actually stimulate the ovaries to increased function and activity" (Frank).

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- (2) Parkes, A. S., "Internal Secretions of the Ovary" 1929.
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Radium Therapy in Cancer of the Cervix Uterus

BY DR. I. G. K. MENON, M.B., B.S.,

Department of Research, Government Hospital for Women and Children, Madras.

Rationale.—The fundamental principle of radium therapy in malignant tumours is that pathological cells are specially vulnerable to the action of radium. It is well known that any normal cell exposed to its action shows a temporary increase of activity, followed by arrest of growth and function and later on, by degeneration and destruction. The same sequence of changes will occur in tumour cells too. There is not however any unanimity of opinion that this is the therapeutic action of radium on pathological cells, though the general trend is to consider the changes to be due to the direct action on cells, which, according to Lazarus Barlow,¹ show successively vacuolation of cytoplasm and nucleus, irregular division of chromosomes, degenerative changes in structure and finally destruction.

Another view put forward, specially interesting because it presents a new and rather fascinating concept of the development of malignant cells, regards the effect of radium to be due to its influence, not on the cell but on the nervous mechanism governing it. Heinz Lauger, M. D.,² in an article on Roentgen Rays and the autonomic nervous system, writes: "Let us suppose a cell complex in connection with the autonomic nervous system. Through some irritation, mechanical, chemical or otherwise, one of the two autonomic systems, the sympathetic or the para sympathetic, is more affected than the other, which causes a certain imbalance in this area as shown by hyperæmia and a change in the chemical consistency of the cell surroundings. The cell now loses contact with the nerve as its regulator and grows wild. In this stage, the histopathological findings are positive and cancer sets in. If radiation is able to reduce the over irritated nerves to normal function, a normal tissue metabolism should again be reached and with the change of ions in the intercellular serum, cancer cells would slowly disappear. This probably takes place in cases where cures of cancer are reported. Prolonged treatment finally paralyses both autonomic nervous systems and this causes irreparable damage. Cancer then grows wild, after some preliminary retardation."

This theory has several points in its favour. It not only explains but also correlates such apparently diverse findings in cancer as the histological absence of nerve elements demonstrated by Marshall, Kimura, Nakamoto Doerr, etc.,¹ the changes in chemistry of the cell surroundings as the increase of serum potassium and the higher pH value (Slosse and Reding³), the easier production and longer continuation of hyperglycæmia in cancer patients (Slosse and Reding³), and even the rationale of general therapy with metals like lead and manganese. It also affords a plausible explanation of the so-called selective action of radium on pathological cells, the irregular and varying results and the occasional puzzling reactions seen after radium therapy and also the general effects as amenorrhœa, anæmia, etc., noticed in workers in Radium Institutes.⁴ The success achieved with radon in the treatment of general conditions like high blood pressure and gout, and of vasomotor disturbances like angioneurotic œdema⁴ and the experimental results in rats obtained by the Radium Institute, London,⁵ certainly cannot be explained on the basis of the direct action on the cell and strongly suggest that radium has a far more general action on the body, perhaps through the autonomic system and the associated endocrine mechanism. A great part of the reactions noticed after radium application and reviewed in this paper is most easily explained by this theory and hence this rather long digression.

Indication and contra-indications.—While radical operative treatment is certainly advisable in those cases coming in a sufficiently early stage of the disease, so far as conditions in Madras are concerned, this is a very rare possibility. The necessity of administering some treatment anyway to patients with cancer of the cervix therefore makes radiotherapy indicated in all cases where it is not definitely contra-indicated.

As for the contra-indications, they are (1) acute infections or a low general condition of the patient. (2) profound anæmia. A certain degree of anæmia is always seen in most cancer patients due to the bleeding and hence only a very severe anæmia can be taken as prohibiting the use of radium. Lymphopenia with leucocytosis is regarded by some authorities as an absolute contra-indication (Report of Marie Curie Clinic, London⁶). (3) The presence of active sepsis in the area to be irradiated. (4) Well formed fistulæ into the rectum or bladder. A raised temperature, specially if due to septic absorption, is a danger signal. Diabetes and renal insufficiency are also regarded as contra-indications, the latter especially on the ground that the toxic products of cell destruction may not be satisfactorily excreted by the damaged kidneys.

As for the use of radium before or after hysterectomy, it still remains under discussion. While some maintain that pre-operative radiation makes the operation easier and the results better,⁷ others hold that the resulting fibrosis makes operation more difficult. Anyway, an operation cannot be performed in the hyperæmic or sloughing stages. Post-operative radiation however is certainly safe and though there also there is discussion as to when to have it, it is advisable to employ it even after an extensive hysterectomy for an early cancer.

An important point to be borne in mind is that on no account should radium therapy be combined with the lead selenide treatment in the same patient. Clinical as well as experimental data adduced by Todd⁸ conclusively prove that the effect is nothing short of disaster and that cancer simply runs riot, when intravenous lead selenide and radium are exhibited together in a patient.

Dosage of radium.—The usual dose applied in the hospital is 50 mgms. of radium element over a period of 48 hrs. giving 2400 mg. hrs., for the first exposure and a similar quantity over 24 hrs. for the next two exposures, with of course individual variations according to the merits of the case. This does not represent any accepted standard as the ideal method still remains under discussion. On the one extreme are people like Sidney Russ⁹ advocating small strengths like 1 or 2 mgms. over periods of 7 to 10 days, with frequent repetitions, while at the other end stand the advocates of massive doses, including Prof. Regaud's dose of 4 grammes of element in the form of teletherapy.⁸ The following table will give an idea of the wide range of strengths and periods of exposure used in various Radium Clinics in the world.¹⁰

Institute.	Strength of Radium element.	Period of exposure.	Repetition of exposure.
Kelly's Hospital, Baltimore	up to 1200 mgms.	1—3 hrs	8 to 12 repetitions at intervals 3 days.
Boston Hospital	300—800 mgms.	3—8 hrs.	
Mayo Clinic	50 mgms.	14 hrs.	
Radium Institute, Paris	60 mgms.	144 hrs.	3 exposures.
" " London	50—75 mgms.	24 hrs.	2 "
Curie Clinic, London	50 mgms.	22 hrs.	
Otto Von Franque, Berlin	100 mgms.	36 hrs.	
Radium Institute, Brussels.	4 grammes at 10 cm. distance.		

About the total dosage, there is more of unanimity of opinion and the optimum is regarded as 6000 to 7000 mg. hrs., 8000 m. h. being the safe maximum.¹¹ The Stockholm institute thus gives an average of 6700 m. h., the Bon clinic, one of 6500 m. h., and the Curie clinic, London, 7000 m. h. While the complete course even at a minimum would be 5000 m. h., the patients here get much less as the slightest relief of symptoms after one or more exposures makes them stay away from the hospital.

Method.—Of the various methods of application, *i. e.*, superficial, cavitary, interstitial and teletherapy or distance irradiation, the simplest is being followed here in cancer of cervix, *viz.*, the cavitary or intra-uterine application. In its favour are to be mentioned simplicity of method, easiness of application, absence of necessity for anæsthesia of any sort and diminished risk of losing the radium needles, while against it the chief point is that the irradiation is not distributed uniformly at all points in the cancer and there is no "cross fire" action. Interstitial application *i. e.*, the introduction of several needles of small strength directly into the tissues, besides being difficult, is not a suitable procedure in this region on account of the difficulty of dressing the area and preventing any accidental loss of the radium tubes. Teletherapy is ruled out on the score of our limited supply of radium. The use of a rubber pessary, with enclosed radium needles, in the fornices was tried in this hospital in addition to the intra-uterine application to provide for cross fire action. The possibility of its slipping out of position, in spite of careful vaginal packing, with resulting serious damage to the healthy mucous membrane and the production of proctitis or even fistulæ, is too great for this method to be safely followed and this practice has accordingly been dropped. It may be mentioned that some well known radium clinics in the West depend only upon the intra-uterine method in treating their cases of cancer cervix.¹¹ The Radium Institute, London,⁴ advocates in addition a general irradiation of the pelvic cavity with flat surface applicators containing 150—200 mgms. screened with 2 m.m. of lead and placed in each iliac fossa, for 24 to 30 hours.

The radium is in the form of its insoluble Salt, Radium Sulphate, $RaSO_4$ two tubes with an element content of $12\frac{1}{2}$ mgms. each and one with 25 mgms. being in use generally in the hospital. The screening is by platinum of .6 m.m. thickness, additional screening being furnished by the Monel metal of the applicator, of 1 m.m. thickness. All the alpha and 99.9% of the beta rays are thus cut off. The radium tubes and

applicator are sterilized by boiling. On no account should the radium containers be allowed to come in contact with mercury or iodine lotions. (Hospital Service for Radium by Hopwood.¹²)

Preparation of patient.—The general condition of the patient is carefully examined as also her blood and urine. Cases with very severe anaemia should be kept in bed and treated, suitably before radium treatment. Locally, the parts are cleaned with vaginal douches thrice daily, with normal saline or if necessary with antiseptic lotions. The patient's lower bowels are emptied an hour before by an enema and the bladder emptied just before the application.

Application of radium.—The patient, after due preparation, is placed in the lithotomy posture and after a preliminary vaginal examination the radium applicator introduced intracervically if necessary with the help of an Auvard's speculum. Preliminary dilatation of the cervix with sounds, though advocated by some,⁶ has not been found necessary in any of our cases and, we are constrained to say, sounds a distinctly alarming procedure in a friable cancer of the cervix. The vagina is now packed with sterile gauze so as to keep the applicator in position and afford protection to the healthy mucous membrane and the bladder and rectum. The long flexible stem of the applicator is brought outside the vagina, and bent over so that its handle lies over the abdominal wall in the region of the umbilicus and is fixed to the skin there by adhesive plaster, preferably the ZO or Dalmoplast rubber adhesives. The patient is instructed to lie perfectly still on her back during the whole period. There is no restriction of diet. In case of any difficulty of micturition, she should be catheterized every eight hours.

Effects and results.—Farrar¹⁸ describes the changes in cancer of the cervix after radium treatment in the following stages:—

“1. Hyperaemia—For one week after the initial dose, the tissues of the cervix are intensely red and hyperaemic. The vessels are engorged with blood and hence the author does not consider that a case should be irradiated if an immediate operation is imperative.

2. Sloughing—one month after application.

3. Healing—two months after. The appearance of the cervix is now completely changed as the slough has separated, leaving a smooth clean dusky red cervix, rather glazed but clinically showing no evidence of cancer.

4. Contraction—The development of connective tissue excited by irradiation reduces the size of the cervix and also the vault

of the vagina. Following this occurs the final stage of extreme contraction, where the connective tissue squeezes out the cervix until there is even a superficial resemblance to an amputated organ. It is only when this stage is reached that the result of Radium treatment is regarded as clinically satisfactory.”

While we are in entire agreement with these observations regarding the stages and their sequence, our experience of the time of their occurrence is that sloughing comes on earlier, between 10 to 15 days and fibrosis follows that, so that in 2 months fibrosis may be very well marked. Hayward Pinch, Superintendent of the Radium Institute, London,⁴ also seems to share this opinion as he advises any operation to be performed within 4 weeks after radium exposure, as afterwards dense fibrosis interferes with the necessary mobility of tissues.

It will be seen from the description of these stages that a second application, causing hyperaemia and sloughing is contraindicated before the sloughing stage due to the first application is over, due to the possibility of severe uncontrollable haemorrhage or other injury. A safe interval of 2 weeks—at least 10 days—should elapse between two applications, specially so between the first and the second.

From the point of view of symptoms, there may be a temporary increase of the bleeding discharge and pain for a few days, the bleeding being evidently due to the hyperaemic stage. Very often this period is absent or very short. After the second or third day itself, the symptoms abate and in the most favourable cases, may completely disappear within a week. Relief of symptoms in those cases which ultimately are benefited by radium was noticed within 7 to 10 days. In the few of our cases marked by intolerable pain as the chief symptom rather than bleeding or discharge, radium had a very good effect. A striking feature of the effect of radium is the extreme shrinking and even complete disappearance of the exuberant “Cauliflower” type of cancer after a very short time. Cases showing crateri form ulcers due to cancer do not respond so well to radium as the above nodular type.

In six or seven cases which we saw after a six months' interval after radium, there was complete relief from symptoms. We are not in a position to say about its effects over longer periods than that as the following up of cases remains as ever the bugbear of such investigations. Hence in the table of results attached, the class “relieved” includes cases with absolute cessation of all trouble, as it was not deemed correct to label them as “cured” on the strength of this perhaps temporary

applicator are sterilized by boiling. On no account should the radium containers be allowed to come in contact with mercury or iodine lotions. (Hospital Service for Radium by Hopwood.¹²)

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effect. In many of the western clinics, numbers of cases have been reported as cured, some on a three and others on a five-years' freedom from symptoms. We do not see any reason why with the necessary following up of our cases over similar periods, we should not be able to get the same results.

Total No. of cases = 90.	<i>No. of case treated with Radium</i> = 54.
	No. of total exposures = 84.
	No. getting one exposure = 30.
	„ „ two exposures = 18.
	„ „ three „ = 6.
Results	„ developing reactions = 24.

Deaths.	No	%
	3	5·5
Discharged against advice ...	5	9·2
Unfit for further Radium treatment ...	2	3·8
No appreciable change ...	3	5·5
Relieved ...	38	70·3
Still in hospital after June 1930 ...	3	5·5

Radium reaction.—Of the 54 cases treated with radium, 24, giving a % of 44, were observed to develop some reaction, either immediate or late. A rather detailed study of these effects is given here as there seem to be few references to this in current literature and as they are more commonly seen associated with intra-uterine applications than at other sites. Needless to say, possibilities of other diseases simulating reactions, like dysenteries in the case of proctitis, have as far as possible been eliminated by the necessary procedures like examination of faeces, blood, etc. The reactions mentioned here are only those which were well marked and definite and do include items which could be ascribed to other influences than of radium. A tabulated description of the 24 cases is given.

Time of occurrence.	Dosage of Ra.	Reactions.	Remarks.
2 hrs. after application.	$50 \times 2 = 100$ I	... Immediate. Nausea, quick pulse, rigor, severe pain, rigidity of limbs, incoherent talking.	Adrenalin caused cessation of trouble.
5 hrs. after application.	$25 \times 5 = 125$ I	... Immediate severe pain.	...

Time of occurrence,	Dosage of Ra.	Reactions.	Remarks.
After removal ...	50 × 48 = 2400 I ...	Immediate Nausea, vomit- ing, quick pulse.	Adrenalin caused cessation of trou- ble.
32 hrs. after I applica- tion after removal II.	I 50 × 32 = 1600 II 50 × 24 = 1200..	Immediate Nausea, vomit- ing, quick pulse on both occasions.	Do.
2½ hrs. after application	25 × 2½ = 62.5 I. ...	Immediate Nausea, vomit- ing, quick pulse, rigor, severe pain, incoherent talking.	Do.
After removal ...	45 × 48 = 2160 I ...	Immediate Nausea, vomit- ing, quick pulse, rigor.	Adrenalin caused cessation of trou- ble no reaction for II and III applications.
During application ...	45 × 48 = 2160 I ...	Immediate Nausea, vomit- ing, quick pulse.	Adrenalin caused cessation of trou- ble.
During and for 3 days after application.	50 × 24 = 1200 I ...	Immediate severe pain ...	...
30 hrs. after application	47½ × 30 = 1425 I ...	Immediate rigor, quick pulse, severe pain.	...
For 3 days after appli- cation.	50 × 48 = 2400 I ...	Immediate severe pain ...	No reaction for II application.
During application ...	42½ × 48 = 2040 II...	Immediate Nausea, vomit- ing, rigor.	No reaction for I application.
4 days after I applica- tion.	I 50 × 48 = 2400 II 50 × 24 = 1200.	Late Proctitis ...	Worse after II ap- plication.
15 days after removal...	50 × 48 = 2400 I ...	Do. ...	...
4 days after removal ...	II 25 × 48 = 1200 III 37½ × 48 = 1800.	Late severe proctitis both times.	No reaction for I, present for II, worse after III application.
10 days after removal...	I 37½ × 48 = 1800 II 50 × 48 = 2400.	Do. ...	Worse after II ap- plication.
2 months after II appli- cation.	50 × 24 = 1200 II ...	Late severe proctitis ...	No reaction for I application.
7 days after application.	50 × 48 = 2400 I ...	Late proctitis and fever ...	...
10 days after I applica- tion.	I 50 × 48 = 2400 II 50 × 24 = 1000.	Late severe proctitis ...	Worse after II ap- plication.
10 days after removal...	50 × 24 = 1200 I ...	Late Mental Instability ?	...
7 days after removal ...	50 × 24 = 1200 I ...	Late severe pain and bleeding, vomiting and nausea.	...
1 week after removal ...	?	Late Rigor, hectic tempe- rature cough.	...
2 days after removal ...	37½ × 24 = 900 I ...	Late Peritonitis ...	Died.
During application and after removal.	50 × 24 = 1200 I ...	Immediate and Late vomiting, giddiness, quick pulse, pain, bleed- ing and tenesmus.	Adrenalin cured immediate symp- toms.
	50 × 48 = 2400 I ...	Complete anuria for 2 days after removal. Bleeding on 11th and 12th days. Fainting on 17th day.	Died.

The reactions can be broadly divided into two classes, not only on the basis of their time of development but as will be pointed out later, on the nature of their causation too—(1) Immediate, occurring during the period of application and within a few hours after removal.

(2) Late, occurring after a variable interval of 3 days to several months, generally within one to two weeks after the application.

Of the 24 cases, 11 showed the immediate reaction only and another 11 the late reaction only, while 2 showed atypical effects. Thus, a patient showing one class of reaction does not show the other, suggesting that the two groups are distinct aetiologically too and that personal susceptibility to radium is not the cause of both types of reactions, at any rate.

Immediate reaction.—Out of the eleven cases in this, 3 were complaining of pain throughout the period of application as well as for 3 days following. An increase of symptoms following the exhibition of radium has been mentioned before; but these three differ from that class in that the pain started immediately after application and hence have been introduced as "reactions." The fact that one of the three who had severe pain after the first had no such trouble after a second application militates against our ascribing the pain to the direct action on the tissues, as in the case of late reactions. The pain subsided in all three cases without treatment.

The remaining eight cases—72% of immediate reactions—showed a very constant group of symptoms, consisting chiefly of nausea, vomiting, quick pulse and rigor. The time of their development varied from 2 hours after application to within 4 hours after removal of radium. As regards the question of dosage in relation to reaction, the strength of radium used in these cases varied from 25 to 50 mgms. and the total dosage, from 62.5 to 2400 mg. hrs. There does not seem to be any relation or proportion between the strength or dosage of radium and the development or severity of this reaction. In fact, the two cases which developed the severest actions did so after 62.5 and 100 mg. hrs. respectively, the strengths being 25 and 50 mgms. In both cases, the reaction was so severe that the radium had to be removed after 2½ and 2 hrs. respectively. It is interesting to note that both these were talking incoherently at the time and had no recollection of this period afterwards. Among these eight cases, only one showed a repetition of the reaction at a subsequent application. Of 2 others who got repeated radium treatment, one developed the reaction after the first but escaped free for the second and third times while the other got the effect only at the second

time, failing to get it in the first. These observations indicate that the effect is not constant in the same patient, as is the case with late reactions and go a long way against the personal idiosyncrasy theory⁴ of its causation, as such a factor is constant for a patient at all times. The other explanation usually suggested for these effects is that they are due to the absorption of the toxic products formed by the destructive action of radium on the tissues.⁴ The very short interval between the introduction of radium and the appearance of the reaction, the transient nature of the symptoms in most cases, and the lack of constancy of these effects in various patients and in the same patient at various times—all these facts are strongly against the toxic absorption theory. It should also be remembered that such decomposition products of cancerous tissues are being constantly formed in a cancer patient, even without radiotherapy and that they do not cause such symptoms then. Another point in this connection is that in 6 of the 8 cases, adrenalin hydrochloride 1 cc. of 1 in 100 solution was given subcutaneously with complete relief of symptoms in all the cases in a very short time. The close similarity of the symptoms with the "vasomotor reaction" manifested after an intravenous neo salvarsan injection¹⁴ and the striking success in the treatment of both conditions with adrenalin force the conviction upon us that the immediate reaction following radium is really a vasomotor phenomenon. Lauger's theory about the action of radiation on the autonomic nervous system, discussed earlier in the article, aids us at this stage with a suggestion that can be drawn from it, *i.e.*, the sudden influence of radium on the disturbed balance of the sympathetic and para-sympathetic, presumed by Longer in cancer, may in certain cases result in the vasomotor phenomena causing rigor, nausea, vomiting and quick pulse. This idea would explain the rapidity of appearance of the symptoms, the constancy of their association, the transient nature of the effects, the absence of reaction in several patients and in the same patient at subsequent applications and the striking success in treatment with adrenalin—in short, all the characteristics of the immediate reactions.

Late reactions.—Turning now to the later effects, we find that 7, out of 11 cases manifesting these only, developed proctitis. The remaining four are neither typical in their reactions nor of sufficient importance to merit individual discussion, except perhaps the one that developed a fatal peritonitis. It was an unfortunate illustration of one of the rare complications of intra-uterine application, *viz.*, "the forcing of septic organisms through the Fallopian tubes into the peritoneum may

cause infections leading to mortality occasionally." (Cotto Von Franque.)¹¹

Corresponding to the symptom complex of nausea, etc., of the first group in its frequency, we have proctitis in this group, 7 out of 11—63% showing only this effect. The earliest time of its manifestation was 4 days after radium, the longest interval before it, 2 months and the general rough average of days between radium application and its appearance, 7 to 10 days. The dosage in most cases was high—2400 m.h.—and they were given repeated exposures. The absence of its development with small doses suggests that dosage plays an important part in its causation, unlike as in the case of the immediate reactions. Two of these seven had only one application each. Three had two applications each and developed proctitis both times, worse after the second. One had no proctitis at the first but developed it at the second time while another one, escaping for the first time, got an attack at the second application and became much worse after the third. These observations, without even a single anomalous instance, lead us to the inevitable conclusions that such proctitis is due to the direct action of radium on the rectal mucous membrane, that it depends directly on the dosage, that a subsequent application might make it manifest when the first one had only lowered the vitality of the membrane, and that if severe, it may lead on to the formation of a recto vaginal fistula. The idea that proctitis may be due to the cancer involving the area can be safely negatived, at least in the above cases, when we find the commonest complication of cancer cervix to be frequency of micturition (14.4%), this pointing to an anterior extension of the cancer more often than a posterior extension. The question of why a few patients show this reaction while most others escape is answered readily by pointing out that any displacement of the intra-uterine applicator, with the patient lying on her back, brings it into direct contact with the posterior vaginal wall, this explaining the frequency of proctitis and the rarity of cystitis as radium effects. Hence proctitis is a complication which can be avoided with greater care on the part of the patient herself and the attendants.

As regards the two atypical cases mentioned, one can be looked upon as combining both types' fractions, immediate and late. The other case is interesting in that it presented another rare complication of radium therapy, viz., complete anuria for 2 days and developed severe bleeding after 10 days, probably in the sloughing stage.

The untoward effects following radium therapy then are seen to fall into two well defined groups. The first consists chiefly of certain

vasomotor phenomena coming on soon after radium, due probably to the oscillations set up in the balance of the two constituent parts of the autonomic nervous system, according to inferences drawn from Lauger's theory. The second group, consisting of late effects of radium, is sharply demarcated from the first, not only in the matter of characteristics but also aetiologically, this being due to the direct destructive action of the radium on the tissues. The difference in aetiology of the two types of effects will be found to explain satisfactorily the difference of their characters also. According to this view, proctitis becomes more a preventible complication sometimes following radium therapy rather than a radium reaction.

Before concluding this paper, I would like to express my deep sense of gratitude and thanks to Col. Hingston, I. M. S., and Dr. Lakshmanasamy Mudaliar, M. D., for permission to work on this subject in the hospital and for their encouragement and valuable advice to me at every stage of this work.

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Acute Yellow Atrophy

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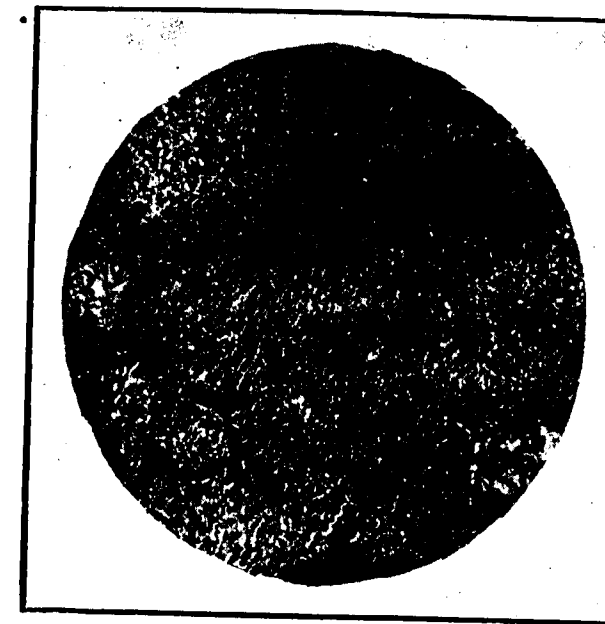
I am reporting below three cases of acute Yellow Atrophy of the Liver, mainly with the object of illustrating the fact that jaundice whether as a presenting symptom or occurring as a complication is always to be viewed with suspicion and needs thorough systematic investigation.

Acute Yellow Atrophy is an invariably fatal disease but fortunately of rare occurrence characterised as the name suggests by atrophy of the liver and acute necrosis of its cells as a result of the action of a toxin generally unknown in nature. Mostly common between the ages of 20 and 30, its incidence is quite as much among females as among males owing to pregnancy being a very important exciting factor in its causation. Sometimes secondary syphilis arsenobenzene trinitrotoluene, alcohol, chloroform and amanita phalloides (a poisonous mushrooms) are the main etiological factors. But in many cases no cause is found for the disease though the pathological changes in acute yellow atrophy very strongly suggests that it is due to a rapidly acting virulent toxin.

Pathology.—Macroscopically liver is extremely shrunken and flabby with a wrinkled capsule and presenting a yellowish green colour. Cut section shows alternation of red and yellow areas, the former consisting of completely necrosed cells and the latter containing part of the liver structure preserved. In extreme cases there may not be any yellow areas at all and the section may be unrecognizable as one of liver. Microscopically cell necrosis, engorgement of capillaries, hæmorrhage and some time proliferation of bile ducts are to be seen.

Symptoms :—In most of the cases as in those reported below two distinct stages can be recognized. In the first stage, which is very often mistaken for catarrhal jaundice there is fever, malaise, constipation, vomiting, itching, muscular pains, anorexia and slow pulse. This goes on for about 5 or 6 days when catostrophic changes occur constituting the second stage, which begins suddenly either with wild

MICROPHOTOGRAPH.



ACUTE YELLOW ATROPHY.

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no Kernig's sign, Brudzinski's sign absent. Blood slight leucocytosis, no spirochaetes. Urine: sp. gravity 1030. acid, albumin nil, sugar nil, bile, no acetone, no tyrosene crystals. Culture negative, guinea pig inoculation negative. Ammonia nitrogen 296 mgm %, total nitrogen 469 mgm%. Motion: loose, yellow, not clay coloured, culture sterile. C. S. Fluid: not under pressure, (110 mm. of C. S. F.) Clear, no cells, 15 c.c. drawn. Protein content 21 mgm.

Course.—On the second day he passed from the stage of maniacal delirium to one of coma with stertorous breathing. Pulse became rapid and feeble. On the 3rd day condition became worse, temperature rose up to 102, and he began to have incessant coffee ground vomiting. He expired the same afternoon.

A partial post mortem was done, liver was found to be considerably shrunken and yellow in colour externally. Section showed extensive necrosis of liver cells with haemorrhages here and there. (See plate).

Case 2. G—H, M., 14 years, admitted one evening for unconsciousness and jaundice. The complaint began with fever and rigor, 7 days previous to admission. He was treated outside as a case of malaria. On the 4th day of fever, he developed jaundice which became worse day by day. A few hours previous to admission he had an epileptiform fit lasting for 5 minutes. He was unconscious ever since. On admission he was restless and delirious. Conjunctivae were yellow, disappearance of liver dullness was noticed. Spleen was just palpable. Respiratory and circulatory systems were normal. Tendon jerks were slightly exaggerated, plantar response flexor. Pupils dilated and sluggish. C.S. Fluid clear and not under pressure. Pulse rapid and feeble. Later coma set in and he died in the early hours of the next morning.

Case 3. R. 20 years, H.M. admitted for jaundice. He gave a previous history of having had venereal trouble 2 months previous to admission. A month before, he had an injection of N. A. B. given by some private practitioner outside. Six days back he got fever which lasted only for a day, accompanied by jaundice for which he sought admission to Hospital. But for the yellowness of the conjunctivae he had no other physical signs. The same evening he became delirious, maniacal in character, extremely restless with tendency to injure himself. He was very irritable, so much so that the slightest touch made him cry out at the top of his voice. Even quarter grain of morphia could not control his delirium and restlessness. Next day physical examination revealed diminution of liver dullness, slightly palpable spleen, brisk reflexes, and

contracted pupils. Urine acid, sp. gr. 1010, no sugar, no albumin, no acetone, bile salts and pigments present, no tyrosene crystals. Blood culture sterile, no spirochaetes. Urine culture sterile, no spirochaetes. Van den Bergh direct positive.

Motion.—No ova, clay coloured. Wassermann negative.

Though unconscious throughout the day, he was making a moaning noise now and then. In the evening his pulse became rapid and feeble, and breathing stertorous. He died late in the night.

All the three cases ran a fairly typical course. In the first two the cause was unknown whereas in the third it might have been due to arsenobenzene poisoning.

My thanks are due to Col. Malcomson for kindly allowing me to report the above cases and to Dr. Narayana Pai for supplying me with the microphotograph of the section.

Cardiac Stimulation for Suspended Animation

By N. S. NARASIMHAN, F.R.C.S.,

Government General Hospital, Madras.

Indications.—Resuscitation of Cardiac activity can be expected only in those conditions in which the cessation of Heart Beats becomes the primary factor producing death. One naturally would not expect restoration of Cardiac function in cases in which the muscle cell is killed by a toxin as in infection, nor in those conditions in which the change in the environment is brought about by a chemical poison, or again in cases in which the heart makes its last feeble stroke as in Chronic Myocarditis. The only cases in which resuscitation of the heart can be expected are those in which cardiac function becomes suspended acutely and in which there is no systematic intoxication. Cases of acute suspension of Cardiac activity are chiefly seen in chloroform anaesthesia and it is in these cases that the best results are obtained. It may be indicated also in those cases that go into collapse after catheterisation or thoracocentesis. Cases of asphyxia, as in drowning, may offer some hope of resuscitation after cardiac stimulation. Cases of exsanguination if accompanied by immediate transfusion or intravenous infusion of saline may be benefited.

Routine.—In cases of suspended animation under chloroform anaesthesia the following physical means are usually adopted:—

Lowering the head, tongue traction and clearing the throat of mucus and other discharges, hot fomentation to the precordium and artificial respiration applied for several minutes. There are two other measures which are adopted namely intracardiac injection of adrenaline and cardiac massage.

Technic and dose.—In every case if the physical means enumerated above are not of any avail 1 c.c. of adrenalin (Schiff—German Physiologist—thirty years ago) must be injected into the heart through the fourth left intercostal space just beyond the sternal edge. It does not matter what part of the heart receives the injection; 1 c.c. is a maximum though as much as 5 c. c. has been employed. Failing response to 1 c. c.

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of adrenalin within two minutes of the cardiac injection the surgeon must have recourse to cardiac massage. Direct injection of adrenalin into the heart is efficient, simple and rapid. When the abdomen is already open direct massage should be the first measure tried if effective artificial respiration has failed.

Experimental Evidence.—When the isolated mammalian heart is pertused with a concentration of chloroform which almost or even completely arrests the heart, the addition of adrenalin to the solution is able to restore the heart beats to their normal vigour. It is well known that adrenalin and chloroform together are likely to produce fibrillation. According to Gunn this is only true of cardiac arrest from chloroform in the initial stages of anaesthesia.

Adrenalin has a power, equivalent to the stimulation of sympathetic nerve to the heart, of antagonizing muscular paralysis.

When death has occurred as a result of long established disease no effect is observed by injecting adrenalin.

Cardiac massage.—Experimental evidence—Schiff (1874) was the first to attempt to revive the heart by massage. It was shown by his experiments, which consisted of chloroforming dogs until the heart ceased to beat, that artificial respiration and stimulation by electricity were of no avail, but massage directly applied restored cardiac action after an interval of 11½ minutes. Tuppier and Hallion reported similar experiments concerning his work. In 1900 Prus reported the results of 100 experiments upon dogs and stated that direct massage and artificial respiration revived 14 per cent, when killed by electricity and over 75 per cent, when killed by suffocation or chloroform. He concludes that life can be induced to return even after the heart had ceased to beat for one hour. Morat and Petzetakis were able to revive the heart after cessation of function for 5 minutes by electrical stimulation. Jeanbran states that he was able to revive the heart 30 minutes after cessation of function.

The successful use of cardiac massage as a therapeutic measure was first reported in 1902 (Starling and Lane). Massage of the heart empties the organ of its blood, thereby relieving distension of its walls, offers an artificial stimulus for the heart to contract, and propels the blood into the myocardium, the lungs and the brain. That massage influences the circulation has been shown in the experiments of White and Gunn by finding in the artery and portal vein dye that was injected.

Rationale massage properly performed acts both as an artificial circulation and as a mechanical stimulus to the heart muscle. But it is essential that it should be done soon enough. It is the cells of the central nervous system that are most susceptible to stoppage of circulation. The heart must be restored before these are irretrievably damaged. The current opinion is that after complete stoppage of circulation for 15 minutes, the cortical cells cannot be revived. It would appear that a very little circulation makes all the difference to the cells of the central nervous system. Since cardiac massage actually causes a certain amount of circulation, the chances of recovery are greater, the earlier the massage is started. It has been shown by Levis and McCoy that nerve cells die almost synchronously with the organism. The brain can tolerate ischæmia for a limited period of time. This period of anoxæmia in dogs and cats has been shown to vary from half to four minutes. But if the period is prolonged signs of degeneration of cortical cells develop and a condition of decerebrate rigidity is produced. It was anæmia of the brain that accounted for the neurological findings in Mollison's case (Proceedings of the Royal Society of Medicine, November 3rd, 1916. In this case the heart had stopped for 15 or 20 minutes before resuscitation).

Technic of cardiac massage.—The approaches may be (1) Thoracic, (2) Abdominal sub-diaphragmatic. (3) Abdominal trans-diaphragmatic.

Thoracic route.—It is an undesirable approach owing to risk of pneumothorax and empyema.

Abdomino-sub-diaphragmatic route.—Through a left epigastric incision the right hand is inserted under the diaphragm and the left hand is placed over the pre-cordium and the heart is gently pressed between the two hands. The heart is pressed about 30 times in a minute, the systole being short and diastole being longer. Massage may be difficult and insufficient except in children or adults with relaxed diaphragm.

Abdomino-transdiaphragmatic approach.—Bost recommends incision of diaphragm an inch to the left of middle line at its insertion into left costal arch. Through a small incision the right hand is introduced into the middle mediastinal space and heart is grasped. Compression should be gentle to avoid any bruising of myocardium. The rate should be slow about 30 per minute. The phase of relaxation should be more prolonged and complete than that of compression. When the heart begins to contract massage should be stopped and reapplied only if contractions are feeble and infrequent. The application of massage intermittently is better, as massage only acts as a mechanical stimulus, allowing the

natural contractility of heart to come into play. A slow rate of compression is necessary, both to allow complete filling of ventricles and as an arrested heart begins beating again at a subnormal rate.

Statistics.—Number of recorded cases till 1924 were 101 of which 25 were successful (Lee and Downs).

If after the heart has been started, the blood pressure continues low and heart beats are feeble, permanent improvement in heart beat and blood pressure is obtained by intravenous injections of Adrenalin or Pituitrin. After the heart is beating strongly and steadily an intravenous injection of atropine is given to prevent secondary stoppage which may some time occur and which proves fatal. Artificial respiration is kept up after the heart starts beating. Natural respiration may be expected to start in 5 to 10 minutes after the heart has started to beat.

In babies the heart should be massaged by fingers pressed under the costal margin without opening abdomen.

The following successful case is from the First Surgeon's ward of the General Hospital.

A male patient aged 45 was admitted on 3rd March 1930 for Hydrocele (right) and Hæmotocele (left). Wassermann was positive moderate. During operation on the 5th March under chloroform anæsthesia both heart and respiration stopped completely, heart-beats could not be heard for about 3 minutes. Cardiac massage was then performed by Col. Bradfield by the abdominal route. Heart started to beat speedily and patient also began to breathe. The operation was completed and patient discharged on 19th April 1930, the delay in convalescence being due to suppuration of abdominal wound.

The following two cases in which cardiac massage though successful died after exhibiting nervous phenomena. The duration of cessation of heart-beats was $3\frac{1}{2}$ to 5 minutes.

Anglo-Indian, male, aged 35, operated for duodenal ulcer. Near the end of the operation patient ceased breathing and heart stopped. Cardiac massage was done about 5 minutes after cessation of breathing. Patient was revived but died 12 hours later.

A Hindu, male, aged 16, admitted with chronic peri-hepatitis on 24th November 1920. On 16th December was operated for appendicitis. At the end of operation patient stopped respiration and soon after heart ceased to beat. Intra-cardiac injection of adrenalin and cardiac massage were performed. The heart restarted after about 5 minutes. But on leaving the table pulse was very rapid. Later

Cheyne-Stokes breathing with clonic contractions in both extremities were noted.

Convulsions continued and patient died 14 hours later.

Conclusions—(1) The period of permissible anoxæmia without damage to central nervous system is 3 to 4 minutes.

(2) Intracardiac injections of adrenalin should be given at once in addition to other steps taken to revive these cases.

(3) If there is no adequate response within two minutes, cardiac massage should be done.

(4) Extra measures as an intravenous injection of adrenalin and atropine are also required.

(5) Cardiac massage should however be tried even though suspension of cardiac function has lasted 15 to 20 minutes (Mollison's case).

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OF THE REGISTER
14 FEB 1931

Editorial.

The ninety-fifth College Day of our *Alma Mater* was held on the 23rd October. His Excellency Sir George Stanley presided and distributed the prizes to the students.

Amongst the distinguished visitors were the Hon'ble Mr. Muthiah Mudaliar, the Minister for our department and the Surgeon-General C. A. Sprawson.

His Excellency after complimenting the College for its smart Gaurd of Honour, gave the students some advice on the necessity of devoting some time for athletics in order to keep fit for carrying on their studies.

He further expressed that there was a good opening for some in the field of dentistry which now has become a speciality.

He was glad to hear that the College was encouraging research and hoped that some of the students of the College would make a name for themselves and the College in the future.

After congratulating the recipients of the prizes, he wished the utmost success to all the new graduates of the College.

* * * *

Rao Bahadur Dr. G. V. James, M.D., C.M., our popular Lecturer in Principles of Surgery and Third Surgeon, General Hospital, retired on 22nd November 1930 after a brilliant career in the Provincial Medical Service.

A series of entertainments were given in his honour by the students and staff.

We wish him a happy and long life to enjoy his well earned pension. We hope he will still continue his interest

in the *Alma Mater* and give his valuable advice to the medical students.

* * * * *

Our congratulations to the recipients of the prizes, amongst whom were three Lady students.

Our special congratulations to Dr. K. Narasimha Rao "the Prize Boy" of the year who carried off no less than four medals including the Blue Ribbon of the College.

* * * * *

There is an interesting article on reviving patients apparently dead especially under a general anaesthetic. In this connection we would draw the attention of our readers to the report of the Watkin Foundation Committee issued by Dr. Albert S. Hyman (Archives of International Medicine, Oct. 1930, pp. 553-568).

According to this report the success is more due to mechanical irritation by the puncture. It is advised that injection be made into the right side of the heart, especially the right auricle as being more physiological and so more useful. A needle four inches long is introduced through the third right intercostal space and directed downwards towards the mid-line. The injection should be intramural rather than intracardiac. The auricle is more responsive for stimuli and extra systoles here are followed by normal ventricular rythm. Injections into ventricles are liable to be followed by arrhythmia (fibrillation or flutter). But auricular arrhythmias do not affect the ventricles.

* * * * *

We regret very much to have received the sad news of the demise of one of our members Mr. Panniker of the second year M. B. Class and of Dame Mary Scharlieb one of the first Lady graduates of this College.

Reflections of the Student Editor

Dr. G. V. James, M. D.

We are very sorry that Dr. James has left us. We shall greatly miss him in the hospital and at the College. Rao Bahadur Dr. G. V. James, M.D., C.M., (Madras) retired from active service for age on the 22nd November 1930. After a very successful career in the Madras Medical College during which he secured the Sibthorpe prize in surgery, Price Memorial prize in Medicine, and the Chipperfield Gold Medal in Clinical surgery, he took his degree M.B.C.M. in 1901. Soon after qualifying he joined the Madras Medical Service as an Assistant Surgeon and was posted to the Government Maternity Hospital. He worked there for nine years. He was then posted as Surgical Registrar and Assistant Professor of Surgery to the Medical College. He was posted as Assistant Professor of Midwifery and Gynaecology in 1911. He took his M.D. in Midwifery and Gynaecology in 1915 when this degree was constituted as a Degree by examination. In July 1917 he was posted as Civil Surgeon to Tellicherry where he made a name for himself as a Surgeon and Gynaecologist. He was made a Rao Bahadur in 1921 by the Government for his work. In 1923 he was transferred to Negapatam where also he was popular. While there he was appointed to the "Selection Grade" of Civil Surgeons. He was appointed as Third Surgeon and Professor of Biology to the General Hospital and Madras Medical College in 1926. In 1928 he proceeded on leave and visited the various European Surgical clinics. That year he was appointed as Honorary Assistant Surgeon to H.E. The Viceroy by the Government. On returning from his foreign tour he was appointed as lecturer in Principles of Surgery in the College and Third Surgeon, General Hospital.

In Dr. James we found both a good teacher and a real friend in the wards, in the class room and elsewhere at various social functions where he was often an important figure. We are sure he has yet very many years of useful service in various fields of work, and we wish him all happiness and health and long life.

Dr. N. Mangesh Rao, F. R. C. S. E.

We welcome heartily Dr. Mangesh Rao who takes the place of Dr. James. We know him very well and rejoice on his coming into a

place which nobody better deserves. If there is anybody who understands students and is their true friend and helper it is he. We offer our congratulations and best wishes to him.

Dame Mary Scharlieb.

Dame Scharlieb an old student of our College, died in London on November 21st, 1930. She was born in London in 1845. She took a course in Madras Medical College receiving a diploma in 1878. Mrs. Scharlieb took her M. B. and B. S. degree in London in 1882. She did so with great distinction, receiving the Gold Medal and scholarship in obstetric medicine and honours in medicine, forensic medicine and surgery. The following year she returned to the Madras Medical College as lecturer in Midwifery and Gynaecology and was also appointed an Examiner at the Madras University. She was made Superintendent of the Victoria Hospital for Goshia Women in Madras later. In 1887 she returned to London and was appointed as Surgeon at the New Hospital for Women and lecturer in Forensic Medicine at the Royal Free Hospital. She took the M. D. (London) in 1888 (being the first woman to do so) and in 1889 was made surgeon at the New Hospital. In the next few years she also held a number of lectureships, including that on obstetrics at the School of Medicine for Women. She was one of the first to take the London degree of Master of Surgery in 1896. She was a member of the Royal Commission on Venereal Diseases in 1916. She wrote a number of valuable works on her own special lines of study. We all revere her name and mourn her death.

We Pay Another Toll.

Mr. Panniker, student, second M.B. class, expired after an illness of double pneumonia on the 31st November 1930. He was the son of the late Dr. Madhava Menon, Personal Assistant to the Surgeon-General. His death was a terrible shock to all of us. He was a tall, handsome and robust young man, and we could scarce believe that he could have fallen a prey to any disease. He was captain of the second year tug-of-war team. The very thought of his death fills us with unbearable gloom and we know not what word of comfort and sympathy we could offer to the bereaved ones. We pray God to comfort them. The mysteries of death are not given to us to fathom on this side of the grave but we know He is able to sustain us and give us His peace that passeth all understanding.

Examination Results.

We offer our congratulations to all those who have come out successful in the recent medical examinations. To those who have been less fortunate we say "Old Medicos 'never say die'!"

There has been an awful slaughter in the preregistration examination. It seems inhuman that our Freshers should be subjected to such rigorous sifting. They join college in July; it takes a fortnight before they can settle down; in September they have their holidays; November brings with it fears and forebodings of the examination looming ahead. Thus, they have systematic lectures and practical course for scarcely four months. During this short time they are expected to turn out as much or more than what the students turn out in two years for the B.A., in Arts Colleges. The Examiners from the Arts Colleges at whose mercy we are, forget that our minimum is 50% and judge us as if we have put in two years' course. One of them, a kind hearted and understanding man, expressed his astonishment recently at the amount we are able to turn out in four months or so.

We want Medical men to *sit side by side* with the "Arts-men" to find out whether one is fit to enter the portals of the Medical College.

Athletics.

Our football team under the able captainship of Mr. Balakrishnan has been doing wonderfully. In the Inter-collegiate tourney after many victories we sustained an unexpected defeat playing against the Engineers. It was a very exciting game but our players lost their usual energy, harmony and poise of mind. We haven't yet lost all hope. In the Presidency College Tournament fixtures were arranged without considering our difficulties and the time of our examination; and as a result we were subjected to great difficulties. But for the Sportsmanly behaviour of our Captains and our Secretary we would have withdrawn from the tournament.

Our Hockey team has played very many matches and has not yet sustained a single defeat. In the Presidency College tournament we were leading but we were "scratched" because we were unable to play when we were forced to do so on a day after our December examination when our men were not in Madras. In the Intercollegiate tournament we are practically the winners having *easily* beaten the "Christians" and

the "Engineers". We congratulate Mr. A. Saldhana, the captain of the team. Adverse criticisms have been flung against him but when all is said and done we would like to add that he is a real power among his men in the team, and their loyalty and allegiance to him is not misplaced. Mr. Saldhana has served in the team faithfully for the last five years.

Our Cricket team is also second to none. This is not a matter of "every chuckler praising his own shoes"! Our teams are the envy of all the other Colleges. We look forward to the Inter-collegiate sports when we hope our men will surpass all records of the previous years.

Our Athletes sorely need sufficient encouragement from the staff and the students. The least that we can do to those who bring laurels to our college, keep its name burnished and its flag flying, is to offer them our support and cheer at all times.

The New Year.

We wish our Readers a Happy New Year! We do not know what this year has in store for us and our country. We know what we have passed through last year. We Medicoes are pledged to serve the sick and the suffering of our land without an eye to position, power and pelf. There lie our efforts at serving our country. Serving the poor and the sick, thus, and by giving our life for the cause of Medical Science in our Country we could do our part in placing it among the leading Nations of the world.

Latest News.

After a hard fight in the Football finals in the Presidency College Tourney, we beat the Engineers, our eternal rival, by 1 goal to nil. The victory was due to three factors: (1) Saldhana's superb "Saves" at the goal, (2) Our most popular Principal Col. Hingston's presence and cheer on the field (3) Captain Balan's beautiful drop from the 'outer.'

I. J. E. DAVID.

Internment

BY MR. G. N. KANTAYYA, B.A. (FINAL YEAR).

The word "Internment" is likely to be confused with another word of similar configuration, but of meaning as different from it, as life is from death—namely "Interment," which means "burial." Looking up a dictionary one finds that "to intern," means, "to confine in a place; to disarm and cause to remain within the boundaries of a neutral country, such troops as have taken refuge within it in time of war," and the noun form is equivalent to "a resident (pupil, doctor, etc.), a boarder." But we were both interred *and* interned! We were dead to all that was going on at the General Hospital, our normal field of activities, and we were disarmed, and locked up within the precincts of the Hospital for Women and Children, Egmore! But it was a glorious loss of freedom, for when we lost our liberty, we found ourselves!! The *camaraderie* born of a common "calamity," drew us into closer bonds of friendship—we sank all differences of caste, creed, community and sex; we shared "one" common meal, we lived and moved as one family. We learned to bear and to forbear. Even when worried, we said we were not worried—Such supreme control over self did we gain!

Let me initiate you into the mysteries of an entry into that feminine hospital. With our bag and baggage left in the charge of "Son of Cabbage" at the Giffard School, at 8 o'clock one fine morning, we introduced ourselves to the R. M. O., Dr. Martin. Now, the R. M. O. is the one who supplies our temporal comforts—though such a definition, on the very face of it, cannot be generalised! Well, he was to be our temporal God anyway, and so we marched up to him. He said to us, "We receive you with open arms, but make known your requests to me with speed and accuracy, and they shall be supplied"! This formality over, we hunted for our "Friend, Philosopher and Guide," our imperturbable, genial Dr. Kuriappan, who gave us such a supply of advice that we could never exhaust it, try how we might, all the days of our life. He told us then to await the arrival of one, greater than himself—even Dr. Lakshmanaswami Mudaliar—I shall refer to him in this story as our "Guru". We were *not* to sit at his feet; we were to follow him at his

heels—a new slogan this—"at the master's heel."! We were glad enough to make ourselves known to him as his "disciples" and straightaway our clinical life at the Hospital began.

Life, at the Maternity Hospital, as elsewhere, is many sided. I shall not specify the many sides, but refer to them as I go along. We were divided into two batches—the day and the night—each on duty from 6-30 till the 6-30 twelve hours after. From 9 a.m. onward, we followed the Second Obstetrician on his rounds, scrupulously going from ward to ward, along with the externs. Sometimes we would tramp behind him in twos (monosexually), and the regular stepping would cause many a patient to look out in wide-eyed wonder. We would pass from the Cottages to the Labour Ward, D₁, H₂, F₁, D₁, Children's Ward, A₁, and then peep in at the Eclampsia Ward, and if there were no operations, climb down the stairs, and pass through B₂ as well. As we followed him, our eyes slowly opened to the wondrous wealth of material for Research, spreading out before us, day after day in the wards. We realised that we were rushing in, blind, ignorant, even careless, where angels fear to tread. On operation days, we would gather in the G. Theatre, or in the H. Theatre for an ocular demonstration of Obstetric and Gynaecological dexterity. On other days, Dr. Kuriappan would graphically tell us, with suitable gestures, all about the specimens in the Museum, and the various advantages and uses of the instruments in general practice. We cannot thank Drs. Lakshmanaswami, Kuriappan, and Martin sufficiently for the genuine, and fatherly interest they took in us, though we have often proved such shirkers. They were kindness itself to us, and made our stay both pleasant and profitable.

But the most interesting part of the Internment is the actual conduction of Labour cases. You may be doing anything in the Students' Quarters—eating, sleeping or involved in some such awkward situation, when the Call may come in the shape of a sharp ring from the Labour Ward. Then, yours is not to reason why, yours is but to run or fly! Instantly, all pleasures are thrown to the winds, and hastily you make yourself presentable, and rush down to the Labour Ward. You wash up, and don the rubber-apron, and report yourself by the side of the Woman. There, one is faced with the bare facts of Life, and as one watches and waits for the new-comer, thoughts chase one another, and one wonders into what circumstances, what future the little one is born. The normal cases hardly require any interference, beyond

the timely reception of the live-parcel. This parcel is duly weighed and acknowledged, and its arrival noted in the large Book of Life, which the Sister-in-charge of the Labour Ward, maintains. Each mother fights her own battle, single-handed, and her stamina is put to the test. I shall not go into the details of a Labour case—it would be too technical, and out of place, but the way one's assistant stands by, watch in hand, ready to note the maternal pulse, often bears a striking resemblance to an event in sports—a race, and one has to encourage and cheer the prospective mother a great deal before she makes to her Goal.

Things are done with the precision of an automaton, once a little experience has been gained. You acquire a sort of technical skill in your manipulation, and you are soon an adept in ushering babies into the world! But it is not always smooth-sailing. Primipara come in, with ruptured membranes, and it often falls to one's lot to sit by, and methodically note down the rate of the Foetal Heart, and Maternal Pulse, every fifteen minutes. This monotony may however be relieved by a little enthusiasm, or if one is friendly, by merry companionship. Sometimes one has to sit up through the night marking time, unless the nurses prove neighbourly, and do it themselves. More often than not, two or three other cases come off, and then one heaves a sigh of relief and with a chuckle, makes over the case of prolonged labour to the incoming batch!

Abnormal cases, and those requiring interference in the shape of forceps, etc., are to be witnessed by all interned—both the day and the night batch. A prolonged ring of the bell, repeated twice or thrice is known as a "General Call," and we all rush post-haste, gathering ourselves into respectability as we clamber down the stair-way. A post-graduate, or house-surgeon, or the Doctor-on-duty, applies the forceps, and the reviving of a deeply asphyxiated baby is always an event for general co-operation, and mutual congratulation.

An account of the Internment would be incomplete, if I should omit to mention the merry picnic parties in the moon-light, the escapades, the excursions to the cinemas in a gang (with of course the permission of the R. M. O., which is always promptly given), the lively strolls in the premises, the practical jokes, the boisterous pseudo-quarrels, the good-natured ragging, the bachelor-housekeeping, etc., etc. Methods of deriving the maximum amount of pleasure and profit from an intern-

ment in the Egmore Hospital may vary, or be peculiar to different batches, but all of us, unanimously feel that the Internment is a never-to-be-forgotten period in one's student career in the Medical College, and that the whole 5 or 5½ years course leads up to it, and reaches a climax therein. We dwell on those days with great pleasure, and a tear silently trickles down at the thought that we can never hope to live them over again!

In Lighter Vein.

(N. B.—Matters published under this heading are not to be taken as 'true facts'! So no reputation is damaged!—I. D.)

A. T. Geo entered the hair dressing saloon for a shave. Much to his annoyance however the saloon was full of people waiting to be attended to. "I say, my man," Geo asked "how long am I to wait to have a shave?" The barber looked at his "Mellins-food-face" and said curtly "you can without hurry wait for at least five years."

"You're looking fit and well this morning", ventured Jack when they met in the park. "Yes," replied Wilson, "Never felt better. It's this motoring age". "What do you mean?" asked Jack.

"I used to be sluggish and easy going before the motor-cars came along," explained Wilson. "But now—" "But I didn't know you motored" interrupted Jack. "I don't" replied Wilson, "I dodge."

Wife of a Police Officer.—(Spending her honeymoon in the wilds) "If brigands should kidnap me what would you do darling?"

Hubby.—I would charge them for carrying a dangerous article risking public safety.

Harry.—I look upon you as a Rascal.

Sally.—You are privileged to look upon me in any character you care to assume.

Wifey.—I read in the paper about a husband exchanging his wife for a horse, would you my Lord?

Ramling'm.—Of course not; but I'd hate to have anyone tempt me with a darned good car.

When the Amjikai Bus began to move the conductor said to Miss.—"your fare miss." The lady began to redden under her skin. Once more the conductor asked "your fare miss." The lady

got wild, and stamped her foot. "Don't be impertinent" she said, "what's it to you whether I am fair or black; I shall get you thrashed."

A patient on his death bed was being coaxed the other day by the priest to forgive his neighbour who ran his car over him. After a good deal of coaxing the dying man said—"well, if I die, it is all right and I forgive him but if I survive, woe unto him; I shall break every bone in his body."

Madhu.—How is it you got married?

Zach.—I was feeling lonely. In short, I married for sympathy.

Madhu.—Well, you have mine.

Friend.—Was the operation successful.

Doctor.—No. The patient got all right and absconded from the nursing home without paying.

The Doctor said to the Father that he had bad news for him, and that his son was so ill that he would not be able to attend school for a number of days. The son heard it and was so happy that his temperature came down that very hour by crisis and he had to go to school the next day.

Doctor.—What portion of the uterus is left behind after a supra-vaginal hysterectomy?

Student Nanju.—The fundus.

Doctor.—What is the advantage of a supravaginal hysterectomy?

Student Nanju.—The uterus will reform from the portion left behind.

Dr. from Gosha Hospital.—Do you give stomach lavage in your hospital for these cases.

Student Ganga.—No, we only wash out the stomach in such cases.

A Zoology Hons. Student at the E. N. T. (trying to be smart.):—"Doctor, I am suffering from throatitis, let me have some mandoline solution."

One of our students was not allowed inside by the gate keeper of the Maternity Hospital as he didn't recognise him as a Medical Student in spite of having seen him working there for three months. But that student had a different experience at the Mental Hospital. During his course there, one day, the gate keeper being unusually on his alert would not allow him to go out without being shown the discharge certificate. Do you know the student?

Extracts from case sheets at M. H. :—

(1) *Age of patient*—44.

Previous history—

11th Para.	1st child by forceps.
	2nd natural.
	3rd forceps.
	4th and 5th natural.
	6th ectopion gestation—Both tubes removed.
	7th abortion.
	8th Fibroid complicating pregnancy.
	Total hysterectomy done.
	9th and 10th natural.

(2) *Age of patient*.—14.

No. of pregnancy.—10th para.

(3) *Height of uterus*.—Just below umbiliform cartilage; Full term.

Acting vigorously—Patient rolling due to pain.

Foetal heart heard distinctly.

Head not fixed—Looks like hydramnios or twins.

Bladder:—When catheterised—all the above signs and symptoms disappeared. Diagnosis?—

Brandy, Sheil's fluid, vigorous slapping, artificial respiration, adrenaline were tried, and it was even proposed that Miss Veena should play on her instrument but all attempts to make the babe cry was futile, but Mr. So and So, you know, came on the scene and the child gave a look at his, (what)? and screamed, and the mother would have kissed Mr. Timely Arrival but for his—(what)?

It has been reported by the sister in charge of the children's ward at the M. H. that toys are missing ever since the present final years were posted there. The class representative of the final year is asked to take note.

The Pope had been speaking with some feeling about the use of cosmetics by girls. "The more experience I have of lip-stick," he declared, "the more distasteful I find it."

Visitor.—"A lovely sort of spot to live in here; what do you do for a doctor if you are ill?"

Native.—"We don't much bother about doctors in these parts. We mostly dies natural deaths."

Ishak Davood (to his chemist).—"Your confounded hair-restorer has made my hair come off more than ever!"

Chemist.—"Ah, you must have put too much Sir! Made the hair come right out instead of only half-way."

M.—"What is your brother in college?"

G.—"A half-back."

M.—"I mean in studies."

G.—"Oh, in studies, he's a long way back."

"Your daughter tells me your wife is having her voice cultivated."

"Yes! And did she tell you the rest of us were growing wild?"

When a man sings in his bath it shows that he is happy—or else that the door won't lock.

A SECOND YEAR RHYME

1. Sing a song of six pice,
Bowels full of rice,
While you are being lectured
By the learned Profs.

2. If the lecture's boring,
Take a little nap,
For ev'n if you're attentive
You're likely to get ploughed.
3. When the lecture's over
Wake the chaps asleep.
If they are still too weary
Give 'em a fag and tea.
4. Don't forget the ladies
When you go for tea
If you'd only take them
You'll taste the tea more sweet.
5. Don't neglect your girl mates,
Aren't they sweet and nice?
They'll refresh your tired brains,
And kindle up your hearts.
6. When you are dissecting
Let your partner dream,
For when it comes to your turn
He'll let you do the same.
7. In the house of corpses
As you sit and gaze,
You'll not see the fair ones,
Hidden by two dam' screens.
8. It's better not to see them
Chopping brains and hearts;
For it kills sweet romance
To see them thus engaged.
9. Krishnans, Nairs, Pereiras,
Marys an' Devies too,
In dense sweating masses
They mince the poor old dead.
10. Take your own dissections,
See what you have done—
Nerves and Glands and Art'ries
All in deuce of a mess.

11. It will be no wonder
If you can't get through.
Next December Exam
May leave you where you are.
12. Sing a song of six pice,
Sing it with a Sigh;
Of you happy blighters
Half will soon get ploughed.

—Talbot Fernando.

(THE FOLLOWING LETTER IS ENTIRELY COMPOSED OF TITLES
OF THE LATEST SONGS.)—SELECTED.

"My Beloved,"

"Am I wasting my time on you" "because I love you"? "since first I saw you" "sweetheart, I am dreaming of you." "Is there anything wrong in that"? "Lady divine," "let me have my dreams." "My inspiration is you"; "There's everything nice about you," "I can't do without you"; "Oh how I weary, dearie, for you!" "Oh you've no ideal!"—"I'm in Heaven when I see you." "Wonderful One," "I've grown so lonesome" "thinking of you"; "Rising early in the morning" "I am thinking of you"; "When day is done," "all through the night" "I am dreaming of you." "When do I love you"? "Always." "My Varsity girl, I'll cling to you," "I'll always be in love with you." "Angel," "if you don't love me"—"why can't you"? "Love, here is my heart." "For you alone," "Forever!" "Honey," "you wanted someone to play with, I wanted someone to love." "How long has this been going on"? "Lovely lady," "Don't make my heart your plaything." "Beloved," "spread a little happiness" "Remembering" "the precious little thing called love." "Honey," "give me a little kiss." "Let me call you sweetheart." "I am a vagabond lover," "Oh could I but express in song" "Love's dream!" "Divine lady," "believe me, all those endearing young charms" "mean to me" "you're sweetheart of all my dreams." "Last night I dreamed you kissed me"—"Sweet dreams." "When will my dreams come true?" "my flame of love," "you are in my heart but never in my arms." "Dear, on a night like this"—"Oh what a night to love!"—"Just imagine!" "If only I had you now!" "All through the night" "Caressing you" "under the moon." "Oh night of love," "That's what I call Heaven." "My pet," "come into the garden" "Down the Lover's

Lane" "if somebody there chanced to be," "Be not afraid" "because" "there's no hiding place." "I don't care"—"I am doing what I am doing for love." "Huggable, Kissable you," "no one but you know how to love." "Honey," "I'm thirsty for kisses, hungry for love," "Oh, do, do, do something." "Red lips, kiss my blues away"—"another kiss"—"again." "Sweetheart of all my dreams," "You were meant for me"; "I can't do without you," "you are always in my arms but only in my dreams." "my ideal!" "Sweetheart, we need each other." "What a wonderful wedding that will be!" "A little kiss each morning."

"Good night,"—"Angels Guard thee,"

"Love and kisses"

"Sweet Dreams"

"Dream kisses"

"Yours sincerely"

"Dream Lover."

(Illustrated Times of India.)

Thoughts for the New Year.

(1) HOPE.

A Star is still beaming
Beyond the grey cloud;
Its light rays are streaming,
With nothing to shroud;
And the star shall be there
When the clouds pass away;
Its lustre unchanging,
Immortal its ray.

—Selected.

(2) THE DAWN.

Now close the weary stars their night-long watch,
In wond'ring stillness waits th'uncertain sky;
Nor night, nor day, the sleeping world doth claim,
All life in awful silence wrapped doth lie.

How smooth and slow the tranquil river flows!
Dark shadows on its bosom sound repose;
How smoothly, slowly, glides the fishing boat,
As with noiseless oars the lonely boatman rows.

There scattered on the dark moss-covered steps
 A few dark shadowy forms stand ling'ring still,
 Hopes of the new moon yet must stir their souls—
 The cares of day have yet their joys to chill.
 Look! how the pale clouds of the hazy East
 Glow with a rosy brightness, and proclaim
 Their mighty Sun-lord in a silent blush—
 No maiden's face e'er knew a brighter flame!
 A message from the East of boundless hope,
 What ringing cheers the great messenger greet!
 How thrills all nature with the joyous news!—
 'A new day bright for throbbing life to meet.'
 Hope, Hope, still hope it rains in sunny showers,
 Its pleasant fragrance fills the morning air!
 On lightsome wings of music gay, doth rise
 A song of praise to Heaven, an incense rare.

—E. S. Chellappa (Final Year)

(3) DUTY.

Be brave.

Life is a conflict with a host of foes,
 Where friends as well as enemies oppose;
 Faint-hearted, fain are we to quit the field
 Yet better far it were to die than yield.
 We yet may have the victory we crave.

Be brave.

Be true.

Let no dark tint of falsehood blur the white
 And stainless page on which we write
 The record of our lives; let no dark blot
 Of treachery or baseness leave a spot.
 To God and to his creatures give their due.

Be true.

Be kind.

The whole creation groans in anguish sore;
 Lay not a finger weight of sorrow more
 Upon the suffering heart of man or beast;
 Bind up the broken-hearted, help the least,
 A mission for our love we all may find.

Be kind.

—Selected.

Case Reports.

A CASE OF HYDRO-NEPHROSIS.

By C. T. RANGASWAMI, FINAL YEAR STUDENT.

A boy aged 15 years was admitted into the Second Surgeon's wards in the General Hospital on 4th November 1930 for a tumour in the abdomen of six months duration.

Previous History.—The tumour was noticed six months previously, it was painless and has remained so ever since. It slowly grew in size. No other symptoms were noticed by the patient.

Present condition.—The patient was a healthy looking boy. A large tumour filled the right hypochondriac and lumbar regions, extending an inch beyond the middle line and slightly bulging the flank. The respiratory excursion of the tumour was about an inch. It was smooth, tense and elastic with a cystic feel and a distinct thrill. It was more movable up and down than transversely. There was a distinct area of resonance between it and the liver. It was dull on percussion except in a narrow vertical strip along its fronto-lateral aspect.

Urine was normal, no deposits found.

Diagnosis.—Cysts of liver, pancreas, omentum and mesentery were easily excluded. Encysted ascites was also easily ruled out. Congenital midline cysts were also excluded easily. A provisional diagnosis of Hydro-nephrosis was made.

Cystoscopy was done. bladder mucosa was normal. The ureteral openings were easily identified. The left ureteral efflux was distinctly seen. Peristalsis of the right ureteral opening could be seen but no efflux was seen.

Chromocystoscopy.—2 c cs. of 1% indigo carmine solution was given intravenously. In five minutes the efflux from left ureter was distinctly blue, but the right ureteral opening showed no coloured efflux. The conclusion was that the right ureter was probably obstructed. Diagnosis was therefore conclusive.

Operation.—The tumour was exposed by usual lumbar kidney-incision. It turned out to be a tensely distended renal-cyst. Owing to its size it was tapped and two pints of limpid urine drawn out. The partially collapsed cyst was now easily delivered out. The ureter was identified and cut between two clamps. Then the vascular pedicle was clamped, ligatured and the tumour excised. The wound was closed in layers with a drainage tube. Convalescence ran a normal course and patient discharged cured.

Appearance of tumour.—The excised cyst when distended was of the size of a small foot-ball capped on its lateral aspect by a thin layer of renal tissue. This became more evident on the collapse of the cyst. There was an aberrant artery from the aorta passing to the kidney about an inch above its lower pole.

Comment.—This aberrant artery was apparently the main cause of pressure on the ureter just below the pelvi-ureteral junction. The hydro-nephrosis was of the pelvic type, the parenchyma of kidney being thinned out by pressure formed a thin cap to the cyst.

I acknowledge my thanks to Col. K. G. Pandalai, I.M.S., Second Surgeon, for permission to report the case.

I.

A CASE OF TUBERCULAR NEPHRITIS.**FROM SECOND SURGEON'S WARD.**

ABDUL HADI, L.M.S., HOUSE SURGEON, S-2 WARDS,

General Hospital.

A Hindu female patient, aged 33, was admitted on 30th September 1930 for a swelling in the left lumbar region. She complained of severe colicky pains coming on at fortnightly or monthly intervals. The pain started in the left loin and radiated down to the left groin and thigh. The attacks started with vomiting and lasted about four days. She complained of frequency of micturition and that the urine was cloudy.

General condition of patient.—Fairly well nourished, teeth and tongue clean. Liver and spleen normal. Circulatory and respiratory systems were normal.

Local condition.—A tumour of the size of a fist could be felt in the left renal area. It was fixed, tender and painful, and appeared to be a solid one.

Urine.—Sp. Gr. 1013, acid, albumin present, no sugar. Deposit was examined and found to contain pus cells, triple phosphates, transitional epithelial cells. Urea was 1.008%.

On the 3rd October cystoscopy was done. Mucous membrane was congested and thickened, and covered with phosphatic deposit especially on the left half of bladder. Left ureteric orifice could not be identified. Right ureteric orifice appeared normal and admitted No. 5 ureteral catheter. Indigo-carmin 2 c.cs. of 1% solution was given intravenously and right efflux was coloured in five minutes, but nothing was seen to come on the left side.

On the 6th, Uroselectan was given intravenously and roentgenograms taken. The right kidney showed perfectly well. It was rather larger than normal and at a lower level. There was no shadow of left kidney.

Operation.—On the 8th usual lumbar incision for kidney. The peri-renal tissue was vascular, laden with fat and densely adherent all round. The external arcuate ligament was cut and last rib mobilised to give more room. After some difficulty the upper pole was freed, but the lower pole was densely adherent, but was also freed. The pedicle was broad and was ligatured in four segments. The ureter was thickened and occluded. There was marked peri-ureteritis. The stump of ureter was ligatured and cauterised with carbolic. Owing to oozing from the large area, wound was partly packed with iodoform gauze and closed with a drainage tube. The patient is progressing well.

II.

A CASE OF WANDERING SPLEEN.**FROM SECOND SURGEON'S WARDS.**

A Hindu female patient, aged 30, was admitted for a tumour in the lower abdomen.

General condition of patient was fairly good.

Examination.—A freely movable tumour in the left side of pelvis, apparently springing from the pelvis. It was slightly elongated, tender and dull on percussion, and appeared solid. The tumour could be freely moved upwards and to the left, into the splenic space easily. When it was down, the splenic area appeared resonant.

Operation.—Laparotomy showed a wandering spleen with a pedicle 8 inches long. The pedicle was easily ligatured and spleen removed. It was 5 inches long. Other organs appeared normal. Appendicectomy was also done. Patient made an unevenful recovery.

I am very grateful to Col. K. G. Pandalai, I. M. S., Second Surgeon, General Hospital, for his kindness in permitting me to publish these two interesting cases.

The Olympic Sports.

The Madras Olympic Sports was held on the 24th of January. Our Fresher Stephen D'Costa was the Champion of the day having come first in all the following four items in which he competed: 50 yds. dash, 100 yds., long jump and Hop-step-and-jump. He broke the previous All-India Record in long jump and Madras Olympic record in 50 yds. dash. He did his 100 yds. dash in the previous Madras Olympic record time.

Ernest Denton came first in Putting-the-shot. It seemed, as he walked in and out "the arena", that it cost him very little effort!

The crowd was surprised and disappointed that our College did not enter for the Relay Race. We demand an explanation from the Secretary, Mr. Ravi Varma.

It was a surprise to us that medicoes were scarce in the crowd that witnessed the 'Olympics'. They were conspicuous by their absence. A poor compliment indeed! "Old medicoes", are they dead? Final years could be excused but what has happened to the present 'Generations'? We fear they are turning unhealthily studious. We hope we shall be proved in the weeks to come that we are mistaken.

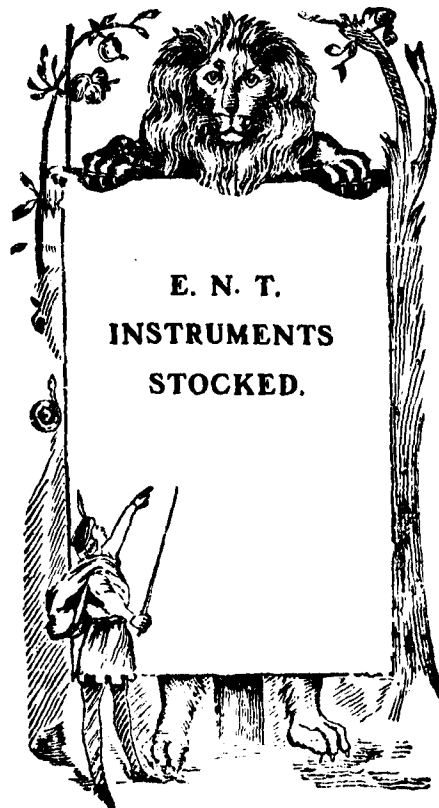
—Student Editor.

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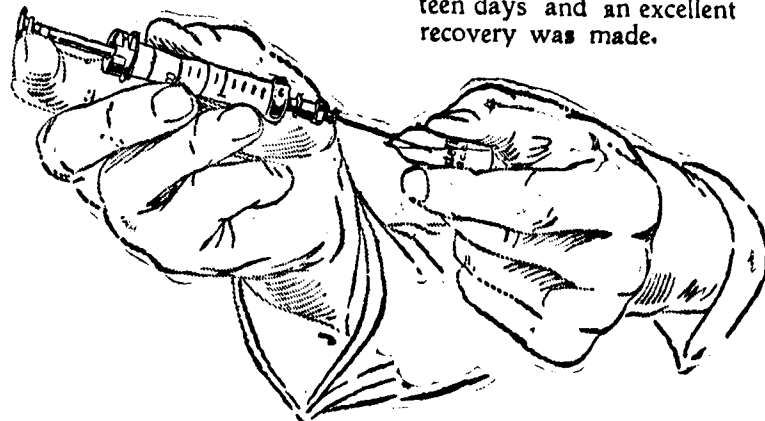
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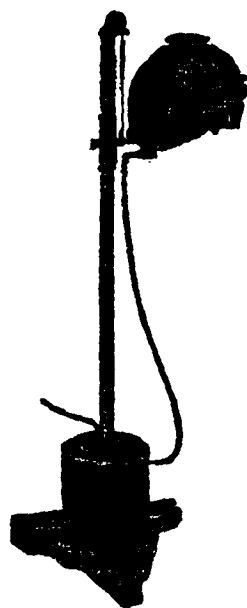
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