



Medical Practitioner:

A monthly medical Journal.

V6. No. 11. August 1935.

The Medical Practitioner

A Monthly Medical Journal

EDITED BY
Dr. V. Rama Kamath,
Member, Madras Medical Council.

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AN APPEAL.

We have herewith sent you *The Medical Practitioner* with our best compliments and shall appeal to you to consider the desirability of your enrolling yourself as a subscriber and help us in our endeavours to serve the profession.

The Medical Practitioner is an unique journal dealing primarily with questions concerning the life and prosperity of the medical profession as a whole. It has been striving hard to put an end to the caste system and bring about unity in the medical profession. Though the discussion of Scientific subjects is of secondary importance with regard to the aims and objects of *The Medical Practitioner*, it has been edited in an uniform and methodical manner to make it attractive even with regard to professional subjects of practical importance. Besides the Editorial and News and Comments columns which deal with subjects concerning the profession in general, Original Articles, Abstracts, Notes on Treatment of Diseases, Notes on Therapeutics, &c., have been the special features of the journal. It will not be out of place to mention that *The Medical Practitioner* came into existence in response to one of the election pledges made by Dr. V. Rama Kamath when he stood for election for the Madras Medical Council in the year 1929. He promised that he would start a journal which would deal specially with the Madras Medical Council, and the journal has been keeping the profession in touch with the activities of the Madras Medical Council ever since. So it is a very useful journal for a general practitioner to keep him up-to-date with information and knowledge, general as well as professional. The subscription of Rs. 2 scarcely pays its cost though it may help. It is the cheapest journal commanding the largest circulation in India and the subscription has been purposely fixed at a low figure so as to enable even the humblest practitioner to be its subscriber, as the journal is intended for propaganda and service.

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V. RAMAKAMATH,

Managing Editor.

THE

Medical Practitioner

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VOL. VI.]

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[NO. 11

Original Articles

*TOXAEMIAS OF PREGNANCY.

BY

DR. (MISS.) H. M. LAZARUS, B. A. M. B.

F. R. C. S. (E) D. G. O.,

Superintendent Government Victoria
Hospital, Madras.

"I hold that if the introduction of a quantity promotes clearness of thought, then even if up to the moment we have no means of determining it with precision, its introduction is not only legitimate but desirable" Sir J. J. Thomson.

The history of science shows that progress has often depended on the use of assumptions not directly verifiable, even when there were only rough approximations to the truth.

The toxæmias of pregnancy constitute one of the most important and interesting problems in the field of obstetrics important because they contribute so much directly and indirectly to foetal and maternal morbidity and mortality, and interesting because we know so little about them from an etiologic point of view. McIlroy states that in the Royal Free Hospital, London, during a period of ten years, the highest cause of still birth rates, was toxæmias of the mother and we have much empiric knowledge, both from clinical and laboratory stand point, but we know relatively little about the causation and ultimate effect of this varied group of conditions known as toxæmias of pregnancy, not all these conditions are fundamentally toxæmias of pregnancy.

Toxæmia is a term which has obtained very general usage, though little is positively known about the conditions it represents. It means that the blood contains toxins or poisons, but their nature we do not understand. These toxins are supposed to be the result of deficient or abnormal general metabolism or morbid processes occurring in special organs, as the liver, the kidneys, the pituitary, the thyroid ; again the poisons are supposed to come from the foetus or the placent, from abnormal chemism occurring here. As a result of the deficient action of some organs of the body, for example, the liver, the kidneys, the thyroid, the pituitary and perhaps others of the ductless glands, these poisons are retained in the body, or they are not sufficiently oxidised or changed so as to be rendered harmless and eliminable by the emunctories and these conditions seem to be aggravated by seasonal variations due either to decreased humidity in the air or fall of atmospheric pressure or cloudy skies. These poisons seem to have great affinity for the nerves of the organs of special senses, for the brain and its nuclii, for the liver, the kidneys, and the capillary walls, affecting them in variable proportions ; also diet and race too perhaps, for, the incidence at the Gosha Hospital, Madras, for toxæmias was 15.82% for Hindus, 1.29% Indian Christians 32.12% Muhammadans.

Such is the theory and to explain why and how these changes originate, there are other theories. Many authors believe that every pregnancy is attended by an auto intoxication, due to the mighty changes in

the general metabolism incident to its adjustments to the new condition, the active chemism required for the transfer of materials for the growth of the foetus, the presence in the maternal blood of the waste of the child, the by-products of the exaggerated eliminatives, action of the special organs liver, kidneys, spleen, skin etc.

The constitution of a perfectly healthy woman might meet all these demands without any external symptoms or signs of disease, but such individuals are becoming rare, and therefore, evidences of impaired function, of toxæmia, are getting quite common. In other words, the woman suffers in her struggle with the parasite, the ovum. The incidence of toxæmias among pregnant women as stated by Stander is 10% among these cases admitted into a maternity hospital in America and found about one-fourth of the total maternal mortality incident and from Mudaliar's report on Maternal Mortality in the city of Madras there were 104 deaths from toxæmias out of 436 registered cases, an incidence of about 25%, the same as Stander.

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STILL-BIRTHS DUE TO TOXÆMIAS.

Year.	1930	1931	1932	1933	1934	Total.
Total still-births from all causes including						
Toxæmias.	177	209	189	235	226	1036
Due to Accidental Haemorrhage.	11	15	13	4	13	56
„ Anaemias.	16	6	13	20	18	73
„ Eclampsias.	13	24	12	20	24	93
„ Albuminurias.	105	75	83	50	90	403
Total still-births due to Toxæmias.	145	123	121	94	145	628

From the above figures you note that more than 50% of still-births are due to Toxæmias.

THE PHYSIOLOGY OF PREGNANCY.

To investigate into the toxæmias of pregnancy where the woman suffers in her struggle with the parasite—the ovum, it is well to look into the changes in some of the maternal organs—the endocrine glands, the blood and metabolism.

CHANGES IN THE ENDOCRINE GLANDS DURING PREGNANCY: Of all the endocrine glands the pituitary gland shows the most

morbid and striking anatomic and histologic changes during pregnancy. Comte was the first to describe the enlargement of the gland, especially in the anterior lobe. The reason for this, according to the French writers, was attributed to an increased function of all the cells. The most exhaustive investigation of this subject was published by Erdheim and Stumme in 1908. They reported their findings in a series of 150 pituitary glands. A confirmation of these results was published by Kolde in 1912. The increase of volume of the pituitary according to these writers, is two and one-half times the normal weight, in actual weight, 1.06 Gm. after removal of the brain at autopsy, the gland protrudes markedly from the Sella tursica.

By roentgenologic examination, one can find a deepening and a pressure atrophy of the floor of the sella tursica or a widening of the opening. As a result of this enlargement, due to the increase in size and function of the anterior portion of the pituitary gland, changes have occurred which have been described as the acromegaly of pregnancy.

Williams mentions that it has been suggested that the non-ocedemations swelling of the features, as well as of the extremities, has some relationship to the activity of the pituitary gland during pregnancy. Rokitsky, Williams also mentions had described the formation of irregularly shaped plaques of porous and newly formed bone upon the internal surface of the cranial bones during pregnancy. These aggregation of cells he designated as puerperal osteophytes. Dreyfus states that their existence may be demonstrated by the use of roentgen rays in every third pregnant woman, and is inclined to believe that their production is in some way associated the activity of the pituitary body.

Pressure symptoms upon the optic chiasma and brain have been described with bi-temporal hemianopia, optic atrophy, cerebral symptoms such as headache, vomiting etc., and evidence of paralysis on the side of the cerebral nerves involved. According to Erdheim and Stumme, with this enlargement and increase in weight, the gland has a more rounded contour and the vessels are dilated and congested. On sectioning the gland the normal reddish-gray colour of the surface is turned to a

homogeneous white or grayish white. It appears more succulent and from it can be pressed a milky fluid. These changes are found almost entirely in the anterior lobe.

The changes in the histology of the gland are just as striking as these gross characteristics. They consist chiefly of the disappearance of the Eosinophilic cells which are predominant under ordinary circumstances and become less conspicuous during pregnancy. The eosinophils are replaced almost entirely by the so-called chief cells, which have a light-staining protoplasm. The basophils are not markedly changed in their numbers. Erdheim and Stumme further state that these changes are very easily demonstrated between the third and fourth months of pregnancy. In primipara the chief cells or pregnancy cells become predominant by the third month and in multipara as early as six weeks. According to these authors, these changes are characteristic enough in the first and second months of pregnancy from the histologic picture of the anterior pituitary alone.

The significance of these changes until the recent work of Zondel and Aschheim have been little understood, but with the discovery of a large amount of anterior pituitary hormones in the urine of pregnant women, the importance of these changes will in all probability soon be revealed. As the re-action of the urine ceases within 24 hours after the removal of the placenta and as it persists in cases of hydatidiform mole or chorion-epithelioma, it is very evident that the stimulating effect of the chorionic villus on the anterior portion of the pituitary gland is most likely responsible for those changes.

Marburg states that the pineal gland, with its alveolar arrangement of gland cells, is to be described as an organ of internal secretion, and it is assumed on that account that it should undergo morphologic functional changes during pregnancy.

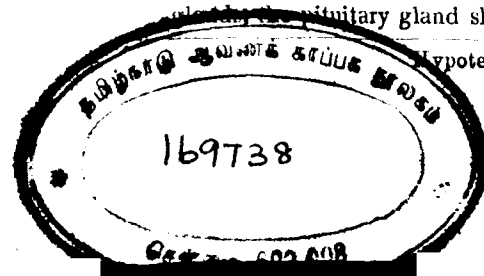
Just as in the case of the hypophysis, the pineal gland is connected with the third ventricle. According to Kehrler, one might assume that the internal secretions of these glands have a relationship to the onset of labour and that between them there is more or less of an antagonism. Accordingly, the secretion from the pituitary gland during the course of pregnancy is neutralised by the secretion from the pineal gland and shortly before labour, for no reason suddenly

becomes inactive. Kehrler believes that there is no doubt a reciprocal connection between the pineal gland and the genitalia. Schwarz mentions a case of tumour of the pineal gland which led to its atrophy and the coincident precocious development of the sex organs, premature development of the hair on the pubis and face, obesity and increased growth. Kehrler mentions the experimental work on male guinea pigs and rats by Horrax and Foa on roosters, which led to an accelerated development of the sex organs. Also according to Aschner and others, after castration, the pineal gland, just as the pituitary gland and adrenals shows characteristic changes. The gland cells are described as being separated from one another, and the nucleus and protoplasm exhibit changes of involution.

Aschner believes that the pineal gland, contrary to the thymus, undergoes an increase in size until after entire development of the body has taken place, that is, up to 20 to 21 years of age. Up to this time it has characteristic long rounded formation with one end going to a tip of the tongue like portion. Brach and Aulles say that this tongue-form characteristic changes to a definitely round contour after castration in cats and cattle. The broadening also takes place, and the contour of the gland becomes more globular in form.

This change in form has also been observed in pregnancy in different animals, as well as in humans. In addition to this, Aschner reports, that microscopically, during pregnancy in different animals, a definite increase in the lipid contents of the cells is observed and between the cells, an increased deposition of calcium, which he assumes is associated with the changed calcium metabolism during pregnancy.

That the swelling of the thyroid gland takes place more or less regularly in pregnancy has been known to ancient people and physicians for a long time. Over a hundred years ago Schweger and Bardeleben demonstrated an enlargement of the thyroid in pregnant dogs. Lange in 1899 spoke of the so-called pregnancy goiter. He pointed out that a physiologic enlargement of the gland exists and demonstrated this by inspection, palpation and mensuration of the neck. He states that this enlargement becomes definitely noticeable by the sixth



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month. After pregnancy the gland quickly undergoes involution. Whether the increase in size of the organ is due to real hypertrophy and hyperplasia of the secreting tissue or whether it is only a vascular transitory hyperaemia has always been a discussion. In certain animals for example, the cat, a hyperaemia only is observed. Engelhorn has demonstrated an increase in epithelial cells, increased secretion and a storage of colloid. He observed these changes in the human, rabbits and guinea pigs. Most observers agree with these findings. Schwarz has observed these changes very strikingly in guinea pigs. A series of thyroids from pregnant guinea-pigs were removed at various stages of pregnancy. About the end of the first trimester there is a marked hyperplasia of the interfollicular tissue, with slightly increased storage of colloid. At the middle of gestation the hyperplasia of the interfollicular tissue is even more marked and the colloid storage only slightly more increased. During the time that corresponds to between fifty and fifty-five days of gestation, the colloid spaces are markedly distended with colloid, and the interfollicular tissue is much compressed and thinned out. At term, however, the colloid storage has markedly decreased and the interfollicular tissue again becomes more prominent but much less so than in midpregnancy. From these findings, it is indicated very definitely that there is increased function of the thyroid in many instances during pregnancy.

Recent investigations have shown rather clearly that the anterior pituitary has a definite influence on the activity of the thyroid.

The well known increase in basal metabolism which is given from 5 to 30% by some, is considered to be a definite increase of the thyroid gland during pregnancy. This has as yet not been definitely proved but in view of the fact of the new investigations which have just been mentioned, Schwarz says, that this would be the most likely deduction.

Although little is known concerning the activity of the parathyroid glands during pregnancy, it is conceivable that on account of their close relationship to calcium metabolism they should be of great importance

during pregnancy. Seitz is of opinion that during pregnancy there is often a markedly increased nervous and muscular irritability, as he has demonstrated by stimulation with galvanic currents, and he seems to think that this may indicate a definite drain on the parathyroids. The increased irritability of the nervous and muscular symptoms has been emphasized by Seitz as perhaps having something very definite to do with the changes in the mineral elements in the blood during pregnancy.

During pregnancy, the cortex of the adrenal glands is markedly increased, due chiefly to the increase of the cells of the zona fasciculata, which are increased in size and also in their fat content. It is suggested that the adrenals have to do with the production of cholesterol which is well known to increase to a considerable degree in the blood during pregnancy as well as the fat content of the blood as a whole. It is pointed out that in Addison's disease marked pigmentation of the face takes place and the varying pigmentations taking place in the skin during pregnancy may have some relationship to the adrenals. The medulla of the adrenal, as well as the entire chromaffin system produces adrenalin. It has not been definitely determined that there is an increase of adrenalin in the blood during pregnancy. Some have claimed this but their work has not been substantiated. In spite of this, the fact remains that during early pregnancy there is a spontaneous and some times quite marked glycosuria which can be artificially produced and exaggerated by injection of adrenalin. Recently as is well known, several tests for pregnancy on the basis of existing glycosuria have been carried out.

According to Seitz, concerning the internal secretion of the pancreas and its disturbances during pregnancy, we know very little to-day. There has been comparatively little work done on the relationship between the ovaries and the pancreas, some of which has been contradictory. We know however that there is marked clinical improvement in a diabetic pregnant woman due to the pancreas of the foetus in her, due as Schwarz reports to marked hyperplasia in the islands of Langerhans.

It is obvious that one could expect very few changes in the thymus during pregnancy,

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because at puberty this organ is already in a state of marked retrogression. However, it is stated that during pregnancy, the involution of the gland is increased and is brought to its completion. Kehrler calls attention to the dangerous combination of status thymicus and status thyraico-lymphaticus where sudden death can occur, especially during the administration of chloroform. According to Wiesel, in the first instance, the death is due to compression of the trachea, and in the second it is due to an accompanying hypoplasia of the chromaffin; especially of the medulla of the adrenal. The secretion of adrenalin is momentarily exhausted which leads to a loss of vessel tone with heart failure.

METABOLISM: Comparatively few complete metabolism studies have been made during pregnancy.

Weight: As first shown by Gassner, in 1862, there is a progressive increase in weight of the mother beyond that due to the product of conception and the increase in the size of the uterus and its adnexa. The pregnant woman reaches her greatest weight about the third day before the onset of labour. During the few days immediately preceding labour there is a definite loss of weight amounting to about one kilogram according to Zange-meister. McIlroy states that an undue increase in weight in the latter part of pregnancy is very significant of water retention in the tissues, it being an earlier symptom than oedema. The normal gain in pregnancy in Indian women should not be more than 12 to 15 lbs. If the gain is excessive it is due to "occult oedema" and is associated with Sodium Chloride intake.

PROTEIN METABOLISM: Pregnancy represents a gain in nitrogen in the mother. Observations of Hofstrom, Wilson and others showed clearly a very definite positive nitrogen balance during the latter half of gestation. From the work of several investigators, it is evident that beginning in the third month of pregnancy there is a gradual diminution of plasma protein. This change is associated with a slight relative increase in serum globulin and a definite increase in fibrinogen. The non-protein nitrogen fraction of the blood on the other hand is the same as or very slightly less than in the normal pregnant woman. There is, however, a slight lowering of urea

nitrogen fraction, due perhaps to a decrease in urea or an increase in the undetermined or rest nitrogen.

In the lowering of the urea content of the blood and the excretion of urea in the urine at the end of pregnancy, one would suspect an increased content of the blood of amino-acids, nitrogen and ammonia, the mother substances of urea, and correspondingly increased amino-acids and ammonia in the urine. An increased amino-acid content of the blood in normal pregnant women could not be substantiated by several investigations, Morse and Hellmuth especially, on the otherhand, Gammeltoft found it to be increased. Ammonia secretion in the urine has been studied by numerous investigators. As a rule, an increase is found beginning in the 3rd month of pregnancy. Hasseltach and Wilson were able to substantiate these findings. In 1924, Stander, in an elaborate study on blood chemistry in normal pregnant women and toxæmias, established values of nitrogen substances in both urine and blood.

FAT METABOLISM: During the latter part of gestation the lipoids of the blood show a marked increase. While the blood of the normal nonpregnant woman contains about 600 mg of the fat per 100 cc. that of the pregnant woman at term has approximately 900 mg. It is possible that the increase in fat, lecithin, and cholesterol represents a preliminary step in preparation for lactation. It is interesting to know that the increase in total neutral fat becomes manifest as early as the third month of pregnancy, after which it increases progressively until term. Lecithin, cholesterol and cholesterol esters are approximately one-third higher in concentration at term than at the third month.

Hellmuth's investigation concerning the chemistry of fats during pregnancy is perhaps the next outstanding piece of work on this subject.

From the work of Slemons and Stander, it was concluded that lipoids as such did not pass through the placenta at all, but that fat was built up from glucose. Their conclusions were based upon the fact that the fat content of the maternal blood becomes definitely increased during pregnancy and always exceeds during pregnancy and always exceeds that of the foetal blood. They feel that this increased lipid content

should be regarded as a preparation for lactation and not that it plays any great part in the nutrition of the foetus in utero. In view of the fact that fat is not definitely found in the foetus until the latter half of pregnancy, at which time Langham's cells disappear, it might possibly be conceived that the cholesterol is brought to the foetus chiefly from the cholesterol esters of the maternal blood, the substances being changed in some way as they pass through the chorionic epithelium, and the fatty acids and cholesterol coming from this split product, reaching the foetal blood independently. Much work has yet to be done in this field before any definite statements can be made.

CARBOHYDRATE METABOLISM: Pregnancy is often associated with glycosuria, although the amount of glucose in the blood stream may not be increased. The blood sugar during pregnancy remains normal, although some authors claim there is a slight decrease as term is approached.

Glycosuria of pregnancy is possibly due to a lowering of the renal threshold for glucose. Wallis and Bose suggested that this glycosuria may be connected with excessive activity of the pituitary gland.

Pregnant women when subjected to a blood sugar tolerance test Stander says, that they often show glycosuria and that deviation from the normal blood sugar tolerance curve. The blood sugar tolerance test has been suggested as a means for determining the existence of a pregnancy. This however has not proved to be very satisfactory, so that blood sugar tolerance test is not regarded to day as of great value in the diagnosis of pregnancy.

The usual relationship of carbohydrate to fat is disturbed during pregnancy. When carbohydrates are withdrawn from the diet, the pregnant woman shows an increase in the excretion of acetone bodies, the intermediate oxidation products of fatty acids. There is also a tendency toward acetonuria during gestation.

In addition to this tendency toward acetonuria, Bokelmann and Schultze found an increase in blood lactic acids during normal pregnancy. Bokelmann regards this increase in lactic acid as a result of slowing

down in carbohydrate metabolism and of a disturbance in the oxidation of lactic acid. Other authors however have not been able to observe marked changes in lactic acid in the blood during normal pregnancy.

MINERAL EXCHANGE: According to Camerer and Soldner, there is a preponderance of calcium and phosphorous in foetus, and these two substances are present in higher concentration in the foetal than in the maternal blood. From this it would seem that there is a considerable drain on the mother as far as these two elements are concerned. Von Oettinger found 10.2 mg of calcium in a normal nonpregnant woman as compared with 9.5 mg per 100 c.c. of blood in the normal pregnant woman. His figures of inorganic phosphorous are 3.6 mg in the nonpregnant and 3.3 mg in the pregnant woman.

CALCIUM: Under ordinary conditions a balance exists between the intake and output of calcium in healthy individuals and under normal conditions of nourishment. The blood calcium content is rather constant and does not fluctuate very much. Kehrer states that for normal women between 20 and 40 years of age, 7 to 7.5 mg in 100 cc of venous blood is normal. Jansen gave a normal value of 8.56 to 8.7 for women in Munich. Kehrer believes this difference may be due to the different constitutions of the people concerned and the character of their nourishment, as the diet in Bavaria is far richer in calcium (milk, butter and cheese) than that of industrial Saxony. The needs of increased calcium metabolism in pregnancy are immediately realised when one refers to the figures given for calcium content of the foetus at various months of pregnancy.

Calcium content of the foetus at the end of the months.

3	4	5	6	7	8	9
0.045	0.030	1.6	4.66	10.44	16.24	28.6

There can be no doubt of the increased need of calcium during pregnancy. In this regard it is necessary to consider the changed function of all organs especially the endocrines, pituitary, para-thyroids, thyroid, thymus, ovaries and adrenals. It is felt that the changed function of all the organs mentioned is associated with the supply of the necessary required amount of calcium.

Hypotenayl tablets contain a special hypoplastic principle of the liver.

In the latter month of pregnancy, on account of the high needs of calcium for the foetus, there is a physiologic diminution of blood calcium which is considerably increased in nephrosis and eclampsia.

Harding in reviewing the metabolism of pregnancy, collected figures from various authors and found that these showed sodium to be very slightly decreased in concentration in the serum but increased in the corpus luteum during normal gestation. Potassium and magnesium are about the same in pregnant as in nonpregnant women.

Stander states that the foetus must derive its iron from the maternal organism and it gets a large part from the mother's haemoglobin. The foetus requires iron for building its own haemoglobin and for its nucleo-proteins. In the adult, nucleo protein is probably the best source for iron required in the manufacture of haemoglobin and it is possible that the foetus may get part of its iron from the food nucleo-protein or an organised nucleoprotein in the mother's blood. Williams thinks that the foetus takes up iron directly by means of the syncytium from degenerated material red blood cells. Charin believes that the reserve iron of the mother is stored in the spleen and is reduced during gestation. It is interesting to know that much more iron is stored in the liver of the young rabbit at birth than in the adult. This is probably true for the human foetus as well.

ACID-BASE EQUILIBRIUM: Hasselbalch was the first to show that the alveolar Co 2 tension is lowered during pregnancy and that this lowering probably manifests itself as early as the second month. The Co 2 combining power of the blood is also definitely lowered and this decrease in alkali reserve has led to the term acidosis of pregnancy. This term, however, is misleading as there is no decrease in organic acids nor any accumulation of abnormal acids in the blood stream during normal pregnancy and the P. H. of the blood in uncomplicated gestation remains within the normal range. Normal pregnancy is, however, associated with a reduction in total serum base amounting to about 8 mille equivalents, in other words about 5% of the total fixed base. This reduction in total base is accompanied by a decrease in serum protein and serum bicarbonate. The reduction in total base in

the serum of pregnancy cannot readily be explained on the basis of foetal requirements, acid production and secretion or even hyperventilation. At present it seems that we are unable to give a satisfactory explanation of this very pronounced serum base decrease which always accompanies normal pregnancy.

BASAL-METABOLISM: There is little doubt that pregnancy is associated with an increase in the total metabolism of the mother. During the past few years, several studies on this subject have appeared and all report an increase of from 4 to 30% in the basal metabolic rate in the pregnant as compared with the normal nonpregnant woman. The increased basal rate is possibly dependent upon the growing product of conception, as well as upon an increased activity of the thyroid gland. Pregnancy probably does not result in any marked alteration in the energy exchange beyond that produced by the growth of the child. The basal metabolic rate returns gradually to normal after delivery.

NEUROVASCULAR SYSTEM: 50% of all pregnant women, according to Feund, show dermatographia and Hinselmann, Nevermann and others state that 60% of all women show capillary spasm. From this it would seem that normal pregnancy is associated with changes in the sumpathetic systems. There are also certain blood diseases peculiar to pregnancy. The anaemia of pregnancy, so familiar to us all, the etiology of which is not yet quite known, whether due to a toxic absorption from the alimentary tract or a vitamin deficiency or endocrine disturbance is not known. Pregnancy hemolysis, pregnancy haemoglobinaemia and pregnancy haemoglobinuria also occur and most authors believe that the haemorrhagic diathesis often associated with pregnancy is probably due to some change in the endothelial covering of the capillary vessels. The skin is very frequently affected by pregnancy. The pigmentation of the nipples and areola, and chloasma of the face are well known.

BLOOD VOLUME: The maternal blood volume steadily increases during pregnancy especially during the latter half, but there is a dilution of blood and a consequent decrease in specific gravity.

We have seen what profound anatomic and metabolic changes take place in maternal organisms during normal gestation. Many of the alternations become more marked in the presence of toxæmia, and it has been the object of numerous clinical and experimental investigations by many workers to determine whether and if so in what manner, these various departures from the normal may be specifically linked up with the etiology and course of the different toxæmic disorders.

(to be continued.)

THE RATIONALE OF THE SURGICAL TREATMENT OF TUBERCULOSIS OF THE LUNGS BY PHRENIC EXAIRESIS.

BY

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Phrenic exairesis which has evolved gradually into a recognised method of treatment of pulmonary tuberculosis after years of trial and failure of the earlier operations of phrenicotomy and phrenicectomy has now been proved to be one of the most decisive of therapeutic measures in the more advanced types of the disease especially those where artificial pneumothorax is inapplicable due to pleural adhesions, bilateral involvement or otherwise. The idea that phrenic evulsion could be of value in basal affections only has now been falsified by years of experience in institutions all over the world. The rationale of this method of treatment has however been explained in different ways by different workers. Thus Campbell¹ considered that phrenicectomy could benefit basal cases only, as the diaphragm acted mostly on basal lung movements. Morriston Davies² observed however, that phrenicectomy benefits both basal and apical affections. Sprawson³ demonstrated by actual measurements and by a discussion of the mechanism of respiration with its effect on different parts of the lung that the main reason why pulmonary affections are benefitted by phrenic

exairesis was the partial collapse that followed the operation affecting mainly the lower zone of the lung on which the diaphragm exerted its muscular action during respiration. In a paper written by me and K. V. Rao⁴ in 1932 we demonstrated by an improved method of measurement in which fixed points in the thoracic wall were avoided and points in the lung substance alone were employed for taking measurements that the contraction of the lung substance after phrenic exairesis could be observed not merely in the lower zone of the lung but in the upper zone as well and that a compensatory expansion was also evident in the collateral lung. This we considered was the explanation of the clinical observations (1) that both apical and basal affections benefitted by phrenic exairesis and (2) collateral activity sometimes flared up after phrenic exairesis as a result of the compensatory strain on the other lung.

In the paper referred to above we have tried to explain that the sum total of the healing effect phrenic exairesis was due to (1) the contraction of the lung substance in all the areas of the organ whether at the apex, middle zone or at the base after the diaphragmatic paralysis with the restriction in size of the foci of activity and consequent lessening of the tuberculous intoxication (2) the comparative rest that the whole lung obtains by a lessening of the latitude of respiratory movements in all its parts, more particularly at the base (3) the partial occlusion of the lymphatics and blood vessels as a result of the contraction of the lung substance, lessening the discharge of toxic products into the system (4) the lessening of the quantity of toxic material in the cavities and bronchial tubes due to their being pumped out of the lung during the contracting process with consequent diminution of toxic absorption and (5) a progressive fibrosis in the lung substance week after week and month after month due to a combination of several factors subsequent to the phrenic evulsion and the consequent stoppage of diaphragmatic respiratory action.

Bronfin and Chernyk⁵ have tried to explain why phrenic evulsion benefits some types of cases more than others. They attach considerable value to the progressive

collapse resulting after phrenic exairesis often leading to the diminution in the volume of the lung to fully 1/3 or 1/4 of the original size. This contraction which takes months to reach its maximum does not necessarily vary with the degree of rise of the diaphragm. Lindberg attributes this progressive fibrosis to occlusion of the lymphatics and blood vessels, increased control of the vagus and the sympathetic and decrease of the downward movement of the lung.

In this paper we shall discuss some additional factors concerned in the mechanism of respiration and in the pathology of the lungs following phrenic exairesis which have a decisive effect in the healing process in pulmonary tuberculosis especially of the advanced type and with cavitation.

It was Paul Slavin⁷ & ⁸ that first drew attention to the importance of the retraction factor in the healing of cavities after phrenic evulsion. By radiographic examination he demonstrated that the filling up of cavities was mainly due to retraction of the capsule of the cavities by the cessation of the pulling force after phrenicectomy between the root and the base and the lessening of it between the root and the apex.

This additional factor has however not been sufficiently stressed by other observers viz., the stretching action on the affected lung tissue, especially on the cavities, which results during the complete and combined respiratory action of the diaphragm and the other respiratory muscles of the chest wall. The root of the lung which is more or less fixed in the mediastinum undergoes very little of movement though it does so to a very slight extent in a perpendicular direction in relation to the spinal column and the chest wall during forced breathing in which the accessory respiratory muscles like the trapezius, the pectoral, the serratus magnus and the vertebral muscles take part displacing the root of the lungs slightly upwards and downwards during expiration and inspiration respectively. But under ordinary respiratory conditions the root is in a fixed position and the apex travels and is stretched upwards and outwards, the middle zone outwards and the base downwards and outwards from the root, exerting a stretching

action on the diseased lung and on the cavities that may be present in any of these three zones. The same pulling action simultaneously towards the apex, base and outer margin from the root probably accounts for the extension of infection from the hilus region towards the periphery, for it is now acknowledged by many clinicians as a result of the study of serial skiagrams of the chest from infancy to adult age that tuberculous involvement begins almost invariably in the hilus glands and is noticed later at the periphery probably travelling by the lymphatics i.e., in a contrary direction to the normal centripetal lymph flow, the spread being most likely facilitated by the stretching and centrifugal action during respiration, the more common incidence of initial lesions at the apex being explained by the larger and more patent lymphatic anastomotic connection between the mediastinal and the supraclavicular lymph nodes. The paralysis of the diaphragm which practically puts an end to the downward movement of the lung relaxes the pull from below with the result that fibrosis goes on unhampered and cavities tend to close much more easily and quickly, by collapsing against the adhesion either at the base or at the apex, the pull of the diaphragm being absent. At the base there is the additional factor of compression of the cavity by the rise of the diaphragm after the phrenic evulsion. Thus in the series of 22 cases included in Table 1 amongst the 15 cases of apical cavitation there was complete closure of the cavities in 8 cases and partial in 7. All the 3 cases of basal cavitation shewed complete filling up of the cavities. There were two cases of basal cavitation due to bronchiectasis and these did not shew complete closure of the cavities but only a partial collapse. This is apparently due to loss of elasticity in the lung tissue in bronchiectasis. In all the cases of closure of cavities, either complete or partial, there was a decided retraction of the cavity as a whole towards the seat of adhesion viz., the apex in apical cavities and the diaphragm in the basal cavities the pull from the opposite direction towards the roots having ended or having been minimized by the phrenicectomy.

Table 1.

Shewing position of cavities and the result of phrenic evulsion on them.

	Filled up completely.	Filled up partially.
Upper zone	8	7
Middle zone	2	0
Lower zone	1	2*

*Both cases of bronchiectasis.

Regarding the relation between the seat of disease and the improvement obtained by the phrenic evulsion, it was evident that the benefit was much less in cases where the whole lung was involved, more when the upper zones were affected and most when the lower and middle zones were diseased (Vide Table 2).

Table 2.

Shewing result of phrenic evulsion with relation to seat of disease.

	Much Improved.	Improved.	No effect.
Upper zone	4	3	0
Middle zone	1	0	0
Lower zone	3	1	0
Whole lung	3	6	1

Of 17 cases with tubercle bacilli in the sputum, in 6 the bacilli disappeared or sputum could not be obtained, in 6 the bacilli decreased in number and in 5 the bacilli were apparently unchanged in number (Vide Table 3).

Table 3.

Shewing result of phrenic exaíresis on tubercle bacilli in the sputum.

Tubercle bacilli disappeared or sputum not available.	6
Tubercle bacilli lessened in number.	6
Tubercle bacilli not decreased.	5

References.

1. Campbell A. J. Quoted by Sprawson C. A. Tubercle 1931—XII—337.
2. Davies, H. Morriston-Ibid 1928—IX—205.

* Read at a meeting of The Academy of Medicine of Cincinnati, February 25, 1935.

3. Sprawson C. A.Ibid 1931—XII—337.
4. Kesava Pai M. & Vasudeva Rao K-Ibid —April 1932.
5. Bronfin and Chernyk-Amer. Rev. Tub. 689—December 1932.
6. Lindberg-Amer. Rev. Tub.-352, September 1933.
7. Paul Slavin-Amer. Rev. Tub.-355—April 1933.
8. Paul Slavin-Amer. Rev. Tub.-629—June 1934.

Abstracts

The Treatment of Hemorrhoids—A Critique *

By

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As a result of the perennial battle of words waged among the votaries of the electrical, the injection and the operative methods of treating hemorrhoids, there prevails a confusion of ideas and opinions about each. It is to be hoped that the evaluations herein made will be of help in forming individual appraisals. The opinions expressed have obtained a practically general acceptance among reputable rectal surgeons.

In the first place, it should be stressed that in the interest of cancer prevention alone, aesthetic sensibilities should always be laid aside long enough to make a thorough examination of the entire field in all patients with rectal complaints of any kind. Before any treatment is suggested or begun conditions whose symptoms simulate hemorrhoids such as ulcerative colitis, polyposis or malignancy in its various manifestations, should be excluded. Only upon this basis, together with an essential and painstaking classification of the hemorrhoids themselves, can an intelligent and effective approach to the treatment be made.

The Electrical Methods—Electricity is applied for the removal of hemorrhoids by electro-coagulation, surgical diathermy, desiccation, galvano-puncture or simple galvanism.

A recent questionnaire sent to members of the American Proctologic Society brought the information that 38.9 per cent were satisfied with their results by the use of galvanism, while 61.1 per cent were not; that 10 per cent were satisfied with their results by the use of diathermy, while 90 per cent were not.

The accepted opinion seems to be that electricity accomplishes in a roundabout way what can be more directly and effectively done either by injection or by operation; that it is wiser to remove tissues by clean surgery than by uncontrollable necrosis. Furthermore, the electrical method is not painless nor, entirely devoid of danger. Also it is somewhat timeconsuming and involves expensive electrical equipment. Usually the end results are considered rather unsatisfactory by the conscientious operator and the majority of patients are eventually disappointed.

The Injection Method—Results here are obtained by the introduction of moderately irritating substances under the mucosa covering the hemorrhoid. These substances surround the venules, exciting a productive inflammation in the adventitia and in the tissue immediately adjacent thereto, thus creating a phlebitis and periphlebitis. The resulting contraction of connective tissue induces a progressive diminution in the caliber of the vein, until at last obliteration results, leaving a small fibrous mass of tissue. The substances in vogue are a 5 per cent or 7 per cent quinine and urea-hydrochloride solution or a 5 per cent phenol in oil solution in contra distinction to the stronger solutions used during the now rather disreputable days of slough.

Full and complete descriptions of the technic of injection may be found in many writings. The most important detail of treatments with this method is the proper selection of cases. However, it is true that injection is a more delicate procedure than hemorrhoidectomy, for if improperly performed, it may be followed by quite disastrous results, such as hemorrhage, slough, abscess and even general sepsis. It is a fairly well-established opinion among rectal surgeons that the only type of case in which the injection method should be used is the simple, uncomplicated internal hemorrhoid, and only then after a proctos-

copic examination has been made to rule out the possibility of any pathology existing higher up in the rectum or the sigmoid. It should never be used if there is an irritable or spastic sphincture, fissure, ulceration, cryptitis, thrombosis or any other kind of local infection. Within these limitations it will be found that there are not more than 50 per cent of cases which are adaptable to this mode of treatment.

After thorough appraisal of the value of the injection method eminent proctologists in this and in other countries have given it their approval in suitably selected cases. It complies with the criteria of a satisfactory *ambulatory treatment* in that there is little or no pain during or after treatment and no detention from business or social duties. It brings symptomatic relief and effects a more or less permanent cure, the parts being left in a healthy condition and functioning normally. By no means, however, is it a universal method or a panacea. Used correctly and where indicated, it has a rightly place in the armamentarium of the rectal surgeon. However, whenever it is the method chosen, the patient should be told impressively that in order to be kept symptom free he should make at least a yearly visit for examination and possible further treatment. Such further treatment is generally found to be necessary. A considerable number of those injected eventually come to operation.

Operative Methods—This method would seem, above all others, to offer to the patient the reward of permanent results and to the surgeon the satisfaction of work well done. When once the public can be made to realize that a hemorrhoidectomy, properly performed and properly cared for afterwards, is not the excruciating ordeal pictured by those who may have undergone one of the mutilating, barbarous procedures of an earlier day, they will prefer a short period of confinement, with assurance of good results, to the so called ambulant methods, with their frequent dissatisfactions.

Hemorrhoidectomy should always be considered as plastic surgery. The operation must be planned and performed in such a manner as to leave the anal canal an unobstructed lumen, without injury or disturbance to the function of this delicate

and highly specialized mechanism, and at the same time without causing more than the minimum of discomfort. This ideal can best be attained by the use of the open method of ligature and excision, which is the method used by by most of the present day rectal surgeons.

A TYPICAL OPERATION

Preoperative Care—The patient is sent to the hospital the afternoon before the operation, which is to be performed the following morning. No cathartic should be given either during or after the operation for this would stir up all manner of infective material to soil the surgical field. A low tap-water enema is given before retiring. The buttocks are shaved and thoroughly scrubbed with soap and water. A sedative may be given if the patient is nervous.

Anesthesia—Whenever possible, local infiltration of a one per cent solution of procaine is the anesthetic of choice. The soluble barbiturates help prevent procaine reactions, consequently sodium amytal, either orally or intravenously, is used as a basal anesthesia shortly before going to the operating room. If the patient is more or less stoical, morphine with hyoscine may be used instead,

Operative Procedure—The patient is placed upon the abdomen and jack-knived over the break in the table in a comfortable position. A pillow is placed beneath the pelvis. This position offers excellent exposure and helps to disengage the varicose veins, in contradistinction to the over-distended condition caused by the lithotomy position with general anesthesia which makes accurate dissection most difficult. The entire picture of a hemorrhoidectomy is changed by local anesthesia and by the use of this position. Due to the anatomical distribution of the hemorrhoidal veins, there will generally be found but three distinct tumor masses—the classical right anterior and the right and left posterior. Each individual tumor mass is grasped with an Allis forcep and gently pulled away from its bed on the sphincture muscle. Astride the base of each is clamped a Kelly hemostat in such a fashion as in no way to include any of the muscle or of the external skin. Any one of the clamps

is now selected and raised gently. A ligature is placed and tied at the superior pole above the hemostat, just deep enough in the mucosa to control the blood supply, but not so deep as to penetrate, even superficially, any of the muscle fibers. Beginning at the mucocutaneous junction, with the narrowest possible base and well away from the muscle, the hemorrhoid is excised close enough up to the ligature to leave an adequate stump. The narrow exposed raw surface is closed by one, two or three stitches through the mucosa, thus securing the small vessels which may have escaped the control of the original ligature. All other masses are dealt with similarly. There are invariably some external skin changes. These are removed with scissors, again involving none of the muscle. It is better to err by too little removal of skin than by too much. Ligatures are used only when absolutely necessary. The interior is now inspected to make sure all bleeding is controlled and that no diaphragm was made during the operation. If the sphincture is spastic or hypertrophied a slight division is made in the posterior commissure. A small amount of diathane (Merrill) is injected beneath the areas from which tissue has been removed. No tube or packing is inserted into the canal but a plentiful amount of diathane ointment is instilled. Dressings are applied externally in the form of an inverted pyramid.

Post Operative Treatment—The patient is returned to his room. Morphine is not withheld but is rarely necessary. The position that is most comfortable may be assumed and the patient may be allowed bathroom privileges. An ounce of mineral oil taken nightly with a petrologar enema given through a large male catheter on the third day, starts bowel function with comparative ease. Sitz baths twice daily add much to comfort. Dressings are removed the second day, when 5 per cent mercuriochrome is instilled by a medicine dropper, after which diathane ointment is again applied. At this time the applicator of the ointment tube is used to massage out the folds of the wounds in order to prevent constriction in healing. Beginning the fourth day, gentle digital manipulation is made to further "iron out" the wounds. Generally the patient leaves the hospital

Hypotensyl tablets reduce Diastolic Hypertension.

the third or fourth day. Twice weekly office visits are made until the patient is entirely well.

SUMMARY

By this method traumatization is kept at a minimum, since there is no stretching, excising or passing of needles and ligatures through the muscle; the mucosa is little disturbed and there is a large island of normal tissue left between each wound. There is very little ligation or suturing; no torturing drains, plugs or whistles are placed in the canal. As a result of this effort to reduce to the minimum possible injury to the sphincters, mucous membrane and external skin, (which should be the aim of any rectal manipulation) healing is prompt and without distortion, recurrences are uncommon, discomfort in general is no more severe than that caused by methods of doubtful value. A thorough job has been done.

CONCLUSIONS

1. Rectal surgery must always strive to conserve the functions of a delicate and highly specialized mechanism by exerting every effort to limit traumatization
2. Electricity tries to accomplish in a roundabout way what can be more directly and effectively done either by injection or operation. The end results, generally, are unsatisfactory.
3. Injection has a rightful place if used with a nearly flawless technic and in properly selected cases. By no means is it a universal panacea.
4. Hemorrhoidectomy properly performed by open ligature and excision is the most ideal method so far devised for the harmless, complete and efficient removal of hemorrhoids.

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Notes on Therapeutics, Diagnosis and other Medical Subjects.

Some Common Mistakes in Diagnosis.

BY

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I am not going to talk about any particular disease or pathological entity, nor can you expect me to give a literary feast. I wish, as a matter-of-fact man, to talk about a few common mistakes that we make in our diagnosis, and the methods of treatment of such cases and to mention the means of avoiding such mistakes. These mistakes are quite possible in the hurry of our daily out-patient work or in private practice.

I shall take first of all, the case of a foreign body in the eye, especially a particle of sand or of coal from a running train. We just look into the eye of the patient expecting to find the particle over the cornea, over the bulbar conjunctiva, in the fornix of the eye or over the sulcus subarsalis. Not finding the foreign body, in any of these situations, we are tempted to dispose of the patient easily, ordering some eye-drops. I have invariably found, in such cases, that the foreign body will be lodged just inside the lower margin of the upper eyelid, close to the eye-lashes, and is very likely to be overlooked, and I can say that I have, on three different occasions, pointed out this mistake committed by three different medical subordinates working under me. The particle which is causing much irritation by rubbing against the cornea during the movements of the lids, will easily come off by wiping with a moist cotton swab, unless it is embedded in the tissues, when a spud or some other instrument will be required.

Next let me consider about a foreign body in the nose. Various kinds of foreign bodies are mentioned, from a bead to a seed, and a leach too. I have myself seen a leach in the nose. The history of this case is very curious. The patient was living in a malarious tract, and gave a history of epistaxis. On examination of the nostril nothing was observed and so a condy's douch was ordered by me. The patient

returned after about ten days with the same complaint and again another ten days later. As the epistaxis looked more or less periodical he was put on quinine, since I suspected malaria. Each time the nose was examined and nothing was noted. Finally he came for the fourth time when I found a fleshy mass slowly wriggling inside the nostrils. With a strong pair of Kocher's forceps, I pulled out this, and found that it was a leach which had drunk blood to its full.

If a seed etc. is fresh, of course, there is no difficulty in diagnosing the thing. Sometimes, it so happens, that a child is brought when there is suppuration in the nose, and a foul discharge due to the irritation from the foreign body, or decomposition of a seed etc., or a history of bleeding from the nostril, & the medicalman is at a loss to know what exactly the condition is. A similar case was brought to me in the out-patient department a couple of months back as some medicalman advised a big operation for the child, presuming that there was a growth or polypus in the nose. If the nostril, in such a case, is just cleaned with a wet swab of cotton, we shall be able to make out the nature of the trouble easily. Perhaps, a little probing will clear all doubt.

In this connection, I think, it would not be out of place if I mention a simple method of extracting a foreign body from the nose with no other assistant than the child's father or mother who brings the child for treatment. I have often used this method successfully in my house without any assistant whenever a case was brought by an anxious father or mother with history of a stone or seed in the nose of the child. I have been told that it requires two or three persons to control a child in such cases and once it even happened that, in an independent station, a medicalman came to me with a child, saying that in spite of his struggling for two full hours, he was unable to remove the foreignbody and he wished me to put the child under chloroform and remove the foreignbody. I showed him that it did not require even a minute to remove the same. The parent sits on a bench or stool and holds the child on his lap in a sitting posture, while he puts one leg across the child's legs and across his own other leg so as to grip the child's lower limbs firmly (probably

one would have done so in fondling his child), while holding the child's hands in one of his own hands and steadying the child's head with his other hand across the child's brow. In this position the child is quiet as it feels more secure in the hands of its own parent than in the hands of a stranger like a ward attendant. Now an instrument like an ear-scoop or better still one like the illustration introduced into the nostril and hooked from the front and above the foreignbody will bring it out in less than a minute.

This instrument which I have shown is not mentioned in any book and I don't know by what name it is called. It anyhow resembles somewhat "Bristol model", probe, directory, and raspatory, shown in page 91, Down Brother's Catalogue. But it has not got the probe point. It has the advantage of being smaller than the usual earscoop, it has the proper curve to remove foreignbodies from the nose and it has no sharp edges to cause any damage to the nostril. I found two bits of an instrument in a condemned lot some fifteen years back and taking a fancy for the same I got one made for me by a local goldsmith and I can say that I have extracted well over 500 foreign bodies from the nose without a single failure.

Now I take the case of a patient with pain in the ear. "Syringe ear and ear-drops" has become too antiquated a prescription to be used any longer indiscriminately. For, we have learnt to say, "don't syringe if the discharge is haemorrhagic", "don't syringe in acute otitis media after perforation of the drum has taken place", and "don't syringe in chronic otitis media, unless the discharge is very profuse".

But still many a case of earache is neglected, and this is due to our not examining the ear properly, with the naked eye first and then with a speculum and reflected light. For the usual causes of earache are overlooked. The most usual causes of earache are;

(1) wax in the ear which has become too dry and gives a pulling sensation over the drum.

(2) wax in the ear which has become soaked with water and swollen and gives rise to pain from pressure.

Hypotensyl tablets contain the blood pressure reducing principles of Mistletoe.

(3) presence of a foreign body in the ear.

(4) a boil or furuncle in the external auditory meatus.

(5) an acute otitis media.

(6) a bad tooth may give rise to a referred pain in the ear. We cannot, therefore, go on prescribing only ear-drops without examining the case and finding out the cause. Unless our examination is thorough, there is every likelihood of causing more damage to the patient than any appreciable good. I know of one instance where a dead cockroach was lying in a patient's ear, undiagnosed for over a fortnight, the patient undergoing treatment all the while, for pain in the ear and not getting any relief. I have also seen a case of a tamarind seed which was decomposing in the ear for over a fortnight while the medical officer went on prescribing "ear-drops", without having a look, even once, into the ear of his patient.

One more cause of a vague pain in the ear has often been observed by me, especially in a dry climate like that of Bellary, and on examination of the ear neither wax, foreignbody, nor any other abnormality has been observed by me. The drum appeared clean but slightly retracted. The condition requires only a little lubrication of the drum by pouring a little warm oil or glycerine.

"A stomach ache", or, "a pain in the abdomen" is another very common complaint where a mistake in diagnosis is often committed. We often treat it as a very trivial complaint, and yet, it is here that great care in diagnosis is required. We see even persons like constables trying to malingering with "a stomach-ache." No doubt, we cannot be very sure of abdominal conditions, and even when we have examined a case with very great care we are often obliged to change our diagnosis after an exploratory laparotomy. There is often a tendency to treat a serious abdominal condition as a light matter, even sometimes, prescribing a purgative for a case of intestinal obstruction or a fulminating appendicitis, regarding the condition as one of ordinary "intestinal colic". I have actually seen one case where the out-patient doctor was about to send away such a case having already prescribed a purgative, without observing that the patient was not able to walk erect owing to severe pain and had constipation for over three days, and which

turned out to be intestinal obstruction as was proved by a laparotomy within a couple of hours.

I have also to mention two more cases of mistaken diagnosis. One was a case of strangulated femoral hernia which was diagnosed by my two assistants as a case of suppurating groin glands and the operation was postponed for the next day. As I was absent from the station on account of sessions work, I could see the case only next day when it was found too late to do anything, as the gut had become highly gangrenous and the patient could not be saved owing to the high toxæmia.

The other case was one of a large scrotal hernia which was reported to me by my assistant as one of hydrocele, and which on his opening as for hydrocele turned out to be a hernia. As I had joined there only a couple of days previously from leave, I had believed his report to be correct, and allowed him to operate. Fortunately, as I was within easy reach of him during the operation, I could join him and complete the radical operation for hernia.

These cases are sufficiently illustrative of the mistakes that we are often liable to make and to show the necessity of the great care in the examination of abdominal cases, or of complaints somewhere near the abdomen. It cannot be sufficiently strongly emphasised that every case of severe pain in the abdomen has to be looked upon with grave suspicion. Here I may quote Dr. Ernest Cowell, M.D., F.R.C.S., of Croydon General Hospital, who writes in the Clinical Journal of September 1934, as follows:—"In the case of acute abdominal pain, even if there has been a similar previous attack, call in a doctor, if the pain lasts more than half an hour. If the pain continues more than two hours, in spite of simple remedies, then tell him that there is no objection to his calling an experienced surgeon in consultation.....The cause of acute abdominal pain lasting more than two or three hours, is almost always invariably surgical, sooner or later." Hence a careful examination and prompt treatment is required in such cases.

On three or four occasions, I was obliged to send back from the operation table, cases which were posted as for piles, but which were only cases of syphilitic proctitis. Here, partly I am to blame, as I failed to examine the cases myself beforehand, having depen-

ded entirely upon the report of my assistant.

Having given a list of some of the mistakes in diagnosis which we are liable to make, I should like to say a few words as to why we are unable to diagnose these cases correctly.

First and foremost reason that comes to my mind is the want of time that we actually devote or have at our disposal for seeing these cases. We see these mostly in the out-patients department where we are obliged to do only a lightning-diagnosis. In some of the mofussil stations we see more than two hundred cases within a period of five hours. In fact, it has been my own experience, that I had to attend to between 300 and 400 out-patients per day, i.e., devoting hardly a minute per case. With such heavy attendance in the o. p. one finds it impossible to examine and study every case thoroughly. I believe that we shall be thorough only if we devote more attention to individual cases and have a smaller number of patients to attend to. An attendance of more than 100 per day, must necessarily make our work very perfunctory, and we cannot do anything to the satisfaction of our patients. Besides, one cannot, also, hope to be perfect doing only out-patient work, as we cannot study the progress of some of the important cases. Doing always lightning diagnosis at a moment's notice, we are sure to go wrong in our procedure, especially, in such conditions as abdominal pain etc., and the end-results may be disastrous to our patients. Hence even the so-called dispensaries must have accommodation to admit a few in-patients, even though the number of beds may not be four, to facilitate observation and better treatment.

Next point I would like to lay stress upon, is that in spite of the want of time at our disposal we should try and devote more attention to the individual cases. I was once questioned by a brother medico, why I devoted so much time in examining every case of ear-ache and eye-trouble that came to the out-patients, and I was able to satisfy him by a demonstration of the different varieties of ear-pain which I have mentioned by showing him some cases.

Thirdly, I think that we should never take the diagnosis of another doctor as gospel truth. We must always satisfy ourselves by an independent examination. This is a lesson which I learned from the case of

the scrotal hernia and the cases of supposed piles I have already mentioned above. But, from this, I don't mean to say that we should not even take any hints or suggestions of other doctors, for small tips here and there may carry us a long way.

Fourthly, we should make it a motto to examine every case once again just before an operation.

With these words I close my lecture.*

The Treatment of Asthma.

In the diagnosis of asthma, J. L. Livingstone emphasises the importance of a good clinical history and a thorough physical examination. He suggests the following questionnaire in order to elicit a good clinical history:

Onset.—When did the first attack of wheezing begin? Does this date from childhood? What was the supposed cause? *2. Cause.*—What causes attacks (bacterial infections, inhalants, foods, drugs, emotion)? *3. Season and Time.*—Is the asthma worse in summer or winter, at the week ends? When do attacks start? Bed-time, in the early morning or during the day? *4. Locality.*—Is it worse in the house or at work, in town, in the country or at the seaside? (Cases worse in the house are frequently sensitive to house dust). *5. Periodicity.*—How often do attacks occur? Is there complete freedom between attacks? *6. Family History.*—Is there any family history of other allergic conditions, e.g., hay fever, eczema, urticaria, migraine? *7. Treatment.*—What does he find best to stop an attack, sprays, drugs, or diet? *8. Habits.*—When does he take his last meal? Does he sleep on a feather bed or pillows? What exercise does he take? Do the bowels act regularly? Is there any digestive upset? *9. Sputum.*—Is the sputum yellow or greenish, suggesting bacterial infection? Or stringy? grey and mucous, suggesting pure asthma spasm?

By physical examination conditions such as mitral stenosis, hyperpiesis with failing left ventricle, carcinoma of the lung and uræmia all of which are sometimes accompanied by broncho spasm, should be excluded. The nose should be looked for gross disease; the typical chest deformity of the chronic asthmatic is obvious; the muddy complexion, thickened eczematous skin and boggy nasal mucous membrane of the marked allergic case are also striking. From the history and clinical

examination he groups the patients into the following classes with their characteristic symptoms:

1. Allergic type.—Condition commonly dating from childhood; positive family history of allergy; attacks caused by inhalant or ingested substances; sputum mucoid; skin tests commonly positive; low gastric acidity.

2. Bronchitic type.—Onset of asthma commonly in later life; attacks related to "colds" and bronchitis; usually worse in the winter months; sputum purulent during attacks.

3. Neurotic type. Highly nervous cases; attacks associated with worry or emotion; quite minor stimuli such as smells or crowded rooms may provoke an attack.

4. Nasal type.—Associated with gross nasal disease, sinusitis; (b) sensitive nasal mucous membrane with much sneezing and rhinorrhœa.

5. Adam's toxic type.—Long history, sallow muddy complexion, thickened eczematous skin; pale, boggy nasal mucous membrane; skin tests positive to various substances; usually associated with hypochlorhydria.

6. Drug-sensitive type.—Aspirin is the most common drug; antipyrine, quinine, cocaine, morphine, ipecacuanha and other drugs have been recorded. The aspirin-sensitive cases are commonly women; the skin does not give a reaction with aspirin; nasal polypi often co-exist. They form a small group highly resistant to treatment.

In the treatment of an acute attack the drug by far that is most useful is Adrenaline; M 5 to 10 of the 1/1000 solution should be injected subcutaneously and the site of the injection should be massaged by the patient. Evatmine (puitrin and adrenaline) is sometimes successful when adrenaline alone fails to give relief. He is averse to the use of Atropine, hyoscine, heroin and morphine because he considers that if adrenaline is given in sufficient dosage there is no need to have recourse to other drugs. By mouth he advises ephedrine gr. $\frac{1}{2}$ to gr. 2 or ephazone one to two tablets.

The following mixture may be given four hourly until the attack abates:

R	Pot Iod.	72 grains
	Tinct. Stramon	15 minims
	Tinct. lobelia etheris	15 minims
	Tinct. camph. co.	60 minims
	Spirit ammon. aromat	20 minims
	Aq. Chlorof. ad.	1 ounce

Alembic GLYCODIN- TERP-VASAKA

Sure Safeguard Against Cold & Coughs.

It is a very effective expectorant and sedative combination for all kinds of troublesome Coughs due to acute or chronic Bronchitis, Asthma, Throat and Pulmonary Tuberculosis, Whooping cough and many other Lung Diseases accompanied by paroxysms of cough or dyspnoea. It does not check secretions nor cause constipation.

One fluid drachm represents :—

Antimony Tartrate.	... 1/160 gr.
Terpene Hydrate.	... 1/8 "
Codeina Phosphate.	... 1/8 "
Menthol.	... 1/24 "
Syrup Tolu.	... 15 min.
Syrup Vasaka.	... Sufficient.

DOSE:—Adults: One teaspoonful to be slowly sucked in during the attack of cough, three or four times a day, and at night.

Alembic Glycodin-Terp-Vasaka is freely used in Dispensaries and Hospitals, being palatable, non-poisonous and harmless.

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* Lecture delivered at a meeting of the Bellary District Medical Association on 22-6-35.

During the attacks the patient may have fruit drinks with glucose *ad lib*, water, soda water, tea and coffee with sugar but nothing else should be given. The bowels should be opened with calomel and a dose of salts.

Between the attacks Livingstone advises a record of attacks and wheezing to be noted down in a book with reference to the predisposing causes such as bronchitis and diet.

With regard to general hygiene of living, he recommends a tepid bath to be taken in the morning and at least an hour's sharp walking exercise to be taken daily. Expiratory breathing exercise should be taken before an open window for ten minutes night and morning, and as much fresh air and exercise during the week-ends.

The bed-room should be cleared of carpets or curtains that may harbour dust. The diet should consist of two main meals the breakfast and lunch, and a light supper not later than 7 p. m. It should be varied but plain and contain plenty of fruit and vegetable both raw and cooked.

With regard to the nose any abnormalities should be treated surgically and the irritable mucous membrane associated with much sneezing may be cauterized slightly on the septum.

The potassium iodide and stramonium mixture may be taken night and morning and the dose gradually reduced as the asthma improves. A tablet of ephedrine or ephazone taken at night is also helpful and should be gradually dropped as soon as the patient begins to get better nights. For patients who complain of fullness after meals, flatulence and mild eczema the following digestive mixture is helpful:

R		
Acid hydrochlor dil.	30 minims	
Glycerini pepsini	60 minims	
Calci chloridi	10 grains	
Glucose liq.	120 minims	
Aq. ad.	1 ounce	

To be taken in a full glass of water, flavoured with orange juice and sugar, as a drink with meals three times daily.

He draws attention to the value of breathing exercises which in his opinion are not appreciated much in the treatment of asthma. The aims of remedial breathing exercise are as follows: (a) to acquire automatic diaphragm breathing at the

expense of the thoracic type of breathing; (b) to concentrate on expiration rather than inspiration, especially at the onset of an attack; (c) to increase the mobility of the chest wall and to relax the accessory muscles of respiration; (d) to correct the kyphosis. An interesting feature is that a number of patients report that they are able to abort an attack by doing the simple expiratory exercise at the onset of wheezing. Simple exercises may be found in a booklet "Remedial Breathing Exercises in Asthma" published by the Asthma Research Council.

With regard to desensitization, there are two methods specific and non specific desensitization is resorted to when it is definitely known to what the patient is sensitive to. These are treated by injection of an increasing dose of solution of the substance at frequent intervals until the patient's skin no longer reacts to the antigen. Of the non-specific methods the following are most useful:—

(a) Intramuscular injection of typhoid vaccine (T.A.B.) containing one thousand million *B. typhosus* and five hundred million each of *Para A* and *Para B* per c.cm. Three injections of 0.25 c.cm., 0.5 c.cm., and 1 c.cm. at intervals are given. (b) Autohæmotherapy.—Blood is withdrawn in a syringe from a vein in the arm and immediately injected into the muscles of the buttock.—5 c.cm., 10 c.cm., and 15 c.cm. are the usual doses. (c) Tuberculin (T.O.A.) was advocated by van Leeuwen, commencing with 0.1 c.cm. of one in a million strength and doubling the dose at bi-weekly intervals until a local reaction is produced; then increase at weekly intervals by 20 per cent. A suspension of feathers, house dust and orris root has been used recently by George W. Bray who has claimed good results.

In the bronchitic type of asthma, vaccines in small doses are valuable. As a stock vaccine Parke Davis & Co.'s bronchial asthma (mixed) vaccine containing about 80 million mixed organisms per c.cm. is useful. The following dosage may be used in an average case:—0.05 c.cm., 0.1 c.cm., 0.2 c.cm., at weekly intervals, 0.3 c.cm., 0.4 c.cm., 0.5 c.cm., at fortnightly intervals; 0.5 c.cm. repeated at three weekly intervals throughout the year.

(*The Practitioner*, p. 591 May, 1935.)

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CLINICAL NOTES AND PRACTICAL SUGGESTIONS. Pulmocalcium in Obstetrics and Gynaecology.

The importance of Calcium for building up the human body, also the influence it exerts over the nervous system have been fully recognised for many years, yet in obstetrics and gynaecology we are frequently confronted with disorders which in many cases could be avoided or greatly improved by the timely administration of a suitable Calcium preparation.

When we carefully examine statistics relative to cases of pregnancy and lactation, it is apparent that insufficient attention is directed towards ensuring an adequate lime supply to the maternal organism.

Calcium and phosphorus are present in large quantities in the bones, actually Calcium forms the major portion of the skeletal system, further, lime is found in all soft tissues and body fluid, its presence, even though in small quantities appears to be essential for most living matter. The blood serum also contains Calcium, this occurs in two forms, non-ionised and ionised. The ionised portion is the physiologically active portion. Observation has shown that the percentage of Calcium in blood serum is remarkably constant, and the maintenance of the percentage appears to be of vital importance for normal neuromuscular activity, and for the activity of the system in general. Serum Calcium is essential for blood coagulation; Calcium also appears to reduce the permeability of tissue cells and reduce inflammation.

Generally speaking the food contains sufficient Calcium to meet the requirements of the body, but during pregnancy there is a marked change in the physiological processes taking place in the female organism which is accompanied, particularly during the later stages of pregnancy, by a greatly increased demand for calcium. During this period some of the internal secretory glands show pronounced stimulation and to cope with the extra activity of the system the action of the heart is increased also. This general stimulation means a greater consumption of serum calcium. The calcium content of the blood appears to be regulated by the Parathyroid glands, which withdraw

the easily mobilised portion of lime and phosphorus present in the bones, but where there is inadequate calcium present in the diet during pregnancy this supply of available calcium in the bones may be seriously diminished with the result, the ratio of serum calcium is below normal, and this is followed by toxic effects on the nervous and neuromuscular systems.

In pregnancy and lactation the maternal organism has to provide the calcium for building up the osseous system of the baby. This demand extends over a long period and consequently puts a severe tax on the calcium metabolism of the maternal system. Normally the calcium is derived from the food ingested daily, but frequently the food is found to be deficient in calcium. When this is the case, the deficiency is made up by the withdrawal of available lime from the mother's organs—such as the bones and teeth, and if this persists we have the onset of caries and osteomalacia, and later when the easily mobilised lime and phosphorus is so diminished that the parathyroids cannot withdraw sufficient to maintain the serum calcium, we have disorders of the nervous and neuromuscular systems making their appearance.

The various activities occurring in the female body during pregnancy and lactation reduce the alkalinity of the blood, and in this connection it should be noted that acidity favours the increased excretion of calcium salts in the urine.

A deficient lime supply to the mother will also produce symptoms in the baby; the defect being rickets. It is frequently reported that rickets in new born babies is now largely reduced, but if close attention is paid to the symptoms it will be found that a mild form of this complaint is extremely common, and in many cases this can be traced to deficiency of lime in the mother's diet. If we pause to consider all the foregoing facts, we will realise the importance of taking all precautions to avoid any possibility of Calcium deficiency arising during cases of pregnancy and lactation; this can be most successfully accomplished by the routine administration of a suitable calcium preparation in these cases. Such a procedure would not only be of benefit to the mother by reducing maternal disorders associated with pregnancy, which sometimes become permanent in character, but would

also be of inestimable value in ensuring a healthier and sturdier offspring.

A suitable calcium preparation for all cases of pregnancy and lactation is Pulmocalcium, which is a tasteless powder representing a combination of pure calcium salts. In Pulmocalcium the salts are combined in proportions most suitable for bodily requirements, this in itself is important due to the fact that any excess of Calcium over phosphorus, or phosphorus over calcium actually hinders absorption of lime; consequently Pulmocalcium [will be found one of the most easily assimilable calcium] preparations. It may be administered throughout pregnancy and lactation without producing any disagreeable results. It will be found that Pulmocalcium is perfectly tolerated by the most delicate stomachs and continued administration does not produce any caustic or inflammatory effects in the intestinal tract which is followed by diarrhoea, such as we have with some calcium preparations, neither does it produce derangement of the function of the gastro-intestinal tract.

The routine administration of Pulmocalcium during pregnancy and lactation will serve as a valuable prophylactic measure by providing the mother with an adequate supply of easily assimilable calcium which will enable her to meet the extra demand without withdrawing lime from the deposits in the bones and teeth, in this way it effectively prevents the onset of Osteomalacia and dental caries. In the same way Pulmocalcium will prevent the development of nervous and neuromuscular disorders which are so frequently associated with pregnancy, by supporting the serum calcium content. By supporting the calcium level of the blood Pulmocalcium exerts a general tonifying effect on the system, since it appears this serum calcium is intimately associated with the activity of the heart and various endocrine glands in the body which undergo greater activity during pregnancy.

Although the exact nature of some of the disturbances occurring during pregnancy is not known, e.g. hyperemesis and eclampsia, it will be found that the timely administration of Pulmocalcium is of great benefit in such cases.

During pregnancy the patient is frequently restless or sleepless at night, while the fetus may also be disturbing in its move-

ments, such cases are often the result of Calcium deficiency and respond well to Pulmocalcium treatment. This preparation will also greatly alleviate the muscular cramps of pregnancy. The administration of Pulmocalcium will frequently be found highly beneficial for the headaches and morning sickness associated with pregnancy.

The introduction of Pulmocalcium therapy in all cases of pregnancy and lactation is of immense value, in that it provides the maternal organism with an adequate supply of easily assimilable calcium to provide for the normal development of the skeletal system of the baby, at the same time it would lead to an improvement in the general standard of the new born and be of valuable assistance in maintaining the maternal health during this period.

There are numerous gynaecological cases in which Pulmocalcium may be introduced successfully. The administration of Pulmocalcium during the menopausal period will produce a beneficial influence by reducing the abnormal excitability of the nervous system and relieving the painful muscular contractions in the legs. Various haemorrhagic conditions are also favourably influenced by Pulmocalcium. Good results may frequently be obtained by the prolonged use of Pulmocalcium in Menorrhagia and menopausal haemorrhage. In cases of simple ovarian bleeding satisfactory results will be obtained by the regular administration of Pulmocalcium.

Associated with many gynaecological disorders we find a reduction of serum calcium brought about by acidosis which is frequently a complication of these disorders and the administration of Pulmocalcium in such cases will assist in resorting the balance between acids and bases and at the same time rectify the deficiency of serum calcium, which is followed by a general improvement of symptoms.

In support of Pulmocalcium therapy in pregnancy and lactation, it may be emphasised that this preparation is perfectly harmless and its administration may be prolonged without any fear of disagreeable secondary reactions taking place.

Filariasis and its treatment.

Filariasis is such a dreadful menace in several parts of India that its adequate treatment must now be common knowledge amongst the general practitioners. Although the disease is not fatal, it incapacitates the patients to a great extent due to pain, swelling and frequent recurrences. The disease is due to a parasite *Filaria* inhabiting the lymphatic system of the human beings. The parasites, both the male and the female are found in the abdominal lymphatics, and the embryos, micro-filaria Bancrofti Nocturna, are liberated in the peripheral blood-circulation. The mosquito responsible for the transmission is a species of the genus *Culex*. The variety of manifestations resulting from filarial infection can be classified under two headings, obstructive and toxic. The different swellings which are noticed in the skin practically in any portion of the body, specially the dependent parts such as scrotum, lower extremities, breasts in women etc. come under the category of the obstructive type, while toxic manifestations are present in the form of fever with lymphangitis, orchitis, joint-pains etc. There might be low or intermittent type of fever with redness of the skin, itches, pruritus and sometimes chyluria.

Treatment should be directed against the obstructive symptoms as well as toxic manifestations. It has been recently pointed out that Filarial manifestations are very often preceded by swelling and redness of the skin, itches and boils and that during the pyrexial stage there is a temporary reduction in the number of eosinophils. Due to the fact that in the majority of cases there is orchitis or lymphangitis of the scrotum, ovaries or broad ligaments due to the blockage of the retroperitoneal lymphatics, some pathologists have concluded that the filarial infection is of a mixed nature and the other bacilli responsible for the secondary symptoms is *B. Coli*, the normal inhabitant of the human intestine. This has been proved both experimentally and clinically. It is therefore advisable in such cases to exhibit Bacte-Coli-Phage. At the outset it is advisable to inject 2 cc of the Phage subcutaneously and then the rest of the ampoules should be swallowed on an empty stomach morning and evening,

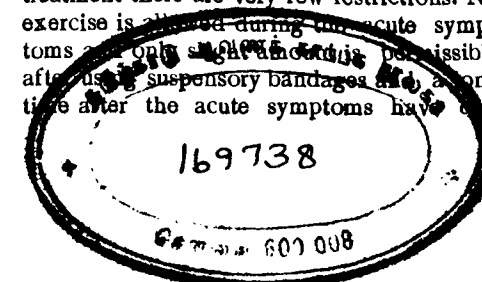
2 cc in half a tumbler of water or preferably Vichy water. The patient should have drachm doses of Soda Bicarb during this Coli-Phage treatment. This therapy has given very satisfactory results. The majority of cases have been definitely benefited. Recurrence of fever has been prevented and the swellings, itch, pruritus, boils etc. have been either reduced or their progress has been arrested.

Besides this therapy there are other lines of medicinal treatment and the drug of choice in these filarial toxic symptoms is arsenic. The best medium through which we can give this is Sulfarsenol, which due to the excellent solvent, arsenosolvent, can be administered sub-cutaneously and safely. This method of arsenic administration not only ensures painless injections but avoids all nerve-shocks, endothelial traumatism and other unpleasant reactions. Internally Calomel should be prescribed in divided doses followed by saline purges. These help much to relieve pain and congestion.

After the acute symptoms have subsided, it is advisable to keep the patients on Hypercytol injections to prevent recurrences. One injection given every other day for a period of one or two months is usually sufficient to prevent further trouble. Potassium Iodide with dilute Nitro-Hydrochloric acid in 10 gr and 10 m. doses respectively should also be prescribed at this stage. If the patient does not tolerate Pot. Iodide in such doses he should be either injected Pharmasol Iodine intravenously or the same should be administered orally. Its rapid absorption partly as Iodine and partly as Pot. Iodide is a great advantage and its very low toxicity prevents iodism and other by effects on the digestive tract. Its thorough absorption by the lymphatics greatly helps antiseptis in the lymphatic system.

If the above line of treatment is followed regularly and for prolonged periods the results in nine cases out of ten are satisfactory. The intermittent attacks of fever disappear, the swellings are much reduced and if the treatment is persisted in, they even totally vanish. With this method of treatment there are very few restrictions. No exercise is allowed during the acute symptoms and only slight walking is permissible after using suspensory bandages and a long time after the acute symptoms have

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appeared. Another accessory method of treatment is ultra-violet therapy which brings about definite improvement in the swellings. When there is much pain diathermy should be given a trial as it is beneficial. The medicinal therapy given above along with these accessory lines of treatment successfully combats any case of Filariasis, which was at one time considered a hopeless and incurable disease.

Some interesting cases.

1. The patient, a woman of about 40, was subject in her youth to violent attacks of Migraine and Urticaria. She had a child at the age of 23 and during that pregnancy these attacks of Migraine and Urticaria were very severe. After delivery of the child menstruation had never returned and the patient had remained amenorrhoeic for all this time. During these years she had sudden fainting and cardiac attacks and albuminuria. There was at times oedema of either upper or lower extremities. The usual treatment for oedema and fainting often proved unsuccessful. After some months the oedema became generalised and she had headache, dyspnoea, polyuria specially at night and painful palpitations. Digitalis and Theobromine were exhibited, but they had very little effect. There was abundant loss of pubic and axillary hair at this time. It was difficult to exactly diagnose the condition, the prognosis of which was considered very grave. After trying several remedies and taking into consideration her amenorrhoea and loss of hair, it was decided to try in this case Opocrin Ovaro thyroid. She was given one ampoule of this preparation every other day and orally she was given 8 opocrins per day. She was kept on diet rich in meat and was asked to lead an active life with moderate exercise in the open air. There was a decided improvement after this therapy. After two weeks there was abundant diuresis and the patient lost about 4 pounds in weight. The oedema disappeared and she did not feel dyspnoea any more. The urine was clear and no longer albuminous. A month after, her menstruation returned and the attacks of Migraine were relieved. Hair

began to grow again. After two months the patient's general condition became excellent. The skin was of normal colour and consistency and oedema had vanished altogether. Although the first few injections were followed by tachycardia and headache, these symptoms disappeared after subsequent injections. There was, after the completion of the course of 24 injections and ingestion of six bottles of opocrins of Ovaro-thyroid over two months, no headache, no nervousness and no tachycardia. She was quite her former self after about three months' treatment.

It is thus clear from this case that there are certain oedemas and heart and kidney symptoms which are due to hypothyroidism. These regain their functional integrity under the influence of thyroid treatment associated with high protein diet. As the ovaries and the thyroid are inter-related and as there was amenorrhoea, loss of hair etc. it was necessary to exhibit this combined treatment.

2. An infant about nine months old was brought to me suffering from severe diarrhoea of 14 days duration. The child was passing all these days thin watery green stools. When it was brought to me there was retention of urine. There was tenesmus, green spurting stools with no admixed blood. The infant was thin and emaciated and passed from 20 to 30 stools per day. I started with Olei Ricini mixture on the first day and strictly regulated breast feeding. It had besides mother's milk, only water with glucose mixed in it. On the second day I started Thoroxyl tablets, 3 per day mixed with sweetened water. For the first two or three days there was very little improvement but on the fourth day the number of stools was reduced to four only and they were of yellow colour. On the sixth day the child passed only two motions which were of solid consistence. From the seventh day onward improvement commenced and the child completely recovered after about nine days.

For any information adverted to in the columns of this journal apply to: The Medical Practitioners' Service Bureau, Vepery, Madras, with stamps for reply.

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[NO. 11

NEED FOR A POST-GRADUATE SCHOOL.

The Madras Medical College is to celebrate its Centenary in the near future. The staff and the Alumni of the College are busy devising plans to celebrate this event in the best way possible befitting the occasion and various plans are under the consideration of the Executive Committee appointed to be in charge of the celebration, to commemorate the Centenary. In this connection, an old boys' association has just been brought into existence and one of the old boys is said to be busy canvassing support for 'the formation of a Post-Graduate Institution under the auspices of the old Students' Association'. While welcoming the idea of the formation of a Post-Graduate institution most heartily, we wish to point out the peculiar conditions existing in this country which have brought into existence different standards of medical education with the resultant castes and compartments, one for each caste making it impossible for the profession to grow as one homogenous entity.

Great Britain is the only country in the west where different standards in medical education exist but there is no ban preventing one possessing the humblest Diploma to qualify for the highest medical diploma or degree in Medicine and Surgery. In all other civilised countries in the west and also in America there is only one standard in medical education and special Post-Graduate study facilities are amply provided for the members of the medical profession to gain knowledge of the ever expanding medical science either as general practitioners or specialists. But India is most primitive with regard to the

development of medical science and the compartmental systems of medical education run by the Government in the interest of administration and not for the benefit of the profession and the public, has been impeding the scientific development of medical profession.

In America and in the West none of the medical colleges or schools are run by the Government. Medical Education and later the Post-Graduate studies are completely under the control of the eminent members of the profession and the Alumni of the schools and the colleges have been wholly or partly responsible for the Post-Graduate studies and special schools and colleges are springing year after year to impart Post-Graduate education for general practitioners or the specialists. Taking into consideration the past and the present history of the existing medical associations and also the state of affairs of the medical administration in this country, we may say without any hesitation that the Alumni, as such, of the Madras Medical College, will not be able to run an institution for Post-Graduate studies however laudable may be their ambition. Though the Madras Medical College is a Government institution, the control of medical education in the College is vested entirely in the Madras University. The Madras University is also bound to take keen interest in celebrating the Centenary of the Medical College. There are influential old boys of the Madras Medical College as members of the Senate of the Madras University. It is a very fortunate coincidence that the Executive Committee in charge of the celebration of the Centenary includes members of the Senate referred to above. There cannot be a more laudable event to

commemorate the Centenary than the inauguration of a Post-Graduate institution under the auspices of the Madras University. The University cannot have objection to afford facilities for Post-Graduate studies to all qualified and registered medical practitioners including the licentiates and even to confer on them special diplomas. The University is at present conducting examinations to confer diplomas for proficiency in oriental languages such as Sanskrit and even in Ayurveda. The University at Vienna where Post-Graduate training is ideal and the best, affords facilities for Indian medical practitioners making no distinction between the graduates and non-graduates. The example of Vienna may be copied in Madras by the Madras University. The Post-Graduate training should not be one man's show in a particular institution as is the case for the L. O. diploma granted by the Government Ophthalmic Hospital or the recent L. G. O. Diploma of the Government Hospital for Women and Children, where the Superintendents of these two special hospitals not only initiated these special Diplomas but run the examination themselves with the help of their staff; nor should these courses be the monopoly of a special class of practitioners. The Alumni of the Madras Medical College do not have any control over the medical education in the college, much less over its administration unlike their brethren in the West or in America where the old boys of particular schools or colleges do, not only control the medical education but also administer the institutions where medical education is imparted.

Even after the introduction of new reforms in this country there will be no hope atleast in the near future for any change of conditions regarding medical education or medical administration and the profession should make the best use of the existing state of affairs and try to afford best possible facilities for the Post-Graduate studies. We trust that the Executive Committee in charge of the celebration of the Madras Medical College Centenary will seriously consider the urgent necessity of inaugurating Post-Graduate studies in this Presidency and take the credit of a lead to other sister provinces. If the Alumni of the Madras Medical College are able to carry our suggestion with the help of the Madras University

and bring into existence in Madras a Post-Graduate institution and even if they are not able to do anything more, they would be doing a great service to the profession and the public and at the same time be commemorating the Centenary in a most useful way.

News and Comments

A good beginning: Soon after we heard the good news that the Silver Jubilee Funds allotted for the District of Coimbatore were to form a nucleus for the starting of a Tuberculosis Sanatorium, we expressed our misgivings in these columns and elsewhere that the management of the Sanatorium was likely to be under the control of Government officials. From the perusal of the proceedings of the general body meeting who have since framed a constitution, we are glad to note that our misgivings have no justification. A society called the Coimbatore Tuberculosis Society will be soon brought into existence and registered under the Society's Registration Act. The Society will consist of four classes of members, "(1) ex-officio, being the Surgeon-General, the Director of Public Health, the Collector of Coimbatore, the District Medical Officer, and the District Health Officer. (2) Honorary members not exceeding three to be elected for their service rendered to the association. They are Mrs. Todd and two tuberculosis experts. (3) Life members who contribute not less than Rs. 2,500 in cash or property. (4) Ordinary members who pay not less than Rs. 100 a year. All classes of members should have equal privileges. They should meet at least once a year to consider the administration report and pass the budget for the next year. The general body consisting of the four classes of members shall elect a board of management once in five years. The board of management shall consist of 15 members of whom three are ex-officio, 12 to be elected by the general body. There shall be a president, a secretary and a treasurer, elected by the Board. All property shall vest in the general body and be administered by the board of management."

A provisional committee has been formed consisting of (1) District Medical Officer (2) Mrs. Todd (3) Dewan Bahadur T. A. Rama-

lingam Chettiar (4) Dewan Bahadur C. S. Rainasabapathi Mudaliar (5) the Hon. V. C. Vellingiri Gownder (6) Mr. P. S. Sathappa Chettiar (7) Mr. V. Sangottiah (8) Rao Sahab K. Raghavendra Rao and (9) Dr. B. S. Viswanathan, with the District Health Officer as Secretary and the Agent of the Imperial Bank as Treasurer. This committee has been given full powers to come to a settlement with the Red Cross Society and bring the Tuberculosis Society into existence.

A good beginning has already been made; besides a few individuals who have come forward for the endowment of beds, (it being estimated that to maintain one bed an amount of Rs. 8,000 was required), the Coimbatore Municipality and the Coimbatore District Board have subscribed liberally towards the capital and recurring expenditure. A sixty bed hospital with 20 beds for the poor non-paying patients, 40 beds for the middle classes and the rich will soon be brought into existence by the end of the year. A general lay-out has been made for 1000 beds. Major-General Sir Frank Connor the Surgeon-General with the Government of Madras is said to be evincing very keen interest and seems to have advised the provisional committee to see that the Sanatorium is managed entirely by the people of the district. This is as it should be.

Tuberculosis is a social disease and we will not be far wrong when we say that if a survey is made not less than 50 p. c. of the population will be potential to tubercular infection of the lungs especially in urban areas. Therefore the ideal should be to have a Sanatorium for each district and if the Perundurai Sanatorium takes up the lead in educating the people not only to impress on them the necessity of having a Sanatorium for each district but also about the possibility of management of such institutions without the help of the Government, it is probable that other districts or atleast group of districts will follow the example of Coimbatore. The feeder for any Sanatorium is the general practitioner and every attempt should be made by all concerned that a large section of the members of the medical profession are the members of the Tuberculosis Society to be started at Coimbatore. The rank and file amongst the general practitioners cannot afford either to be life members or even ordinary members

by paying the subscription fixed at present. We suggest to the Provisional Committee of the Perundurai Sanatorium to devise ways and methods which will enable a large section of the medical profession to be in the general body of the Tuberculosis Society. The members of the medical profession are certainly in a better position to canvass the support of the lay public for the maintenance of the Sanatorium. So provision may be made in the constitution to enlist medical practitioners as members of the Tuberculosis Society on payment of lesser subscription say, Rs. 25 every year. The principle of admitting members without payment of money has been recognised by the Provisional Committee in the case of ex officio members and experts in view of the services the Society is likely to get from them. We hope our suggestion will catch the imagination of the organisers of the Perundurai Sanatorium.

Vaccination Certificates: The Surgeon-General with the Government of Madras has sent us a form of Vaccination Certificate to be issued to intending passengers to foreign countries. The form of the certificate has been published in the Correspondence Columns of this issue. In addition to the marks of identification of the person to whom the certificate is to be given, the practitioner whether he be D. M. O., Civil Surgeon or private practitioner should not only enter the source from where he got the lymph for vaccination but should also give the particulars of the calf from which the lymph was extracted. Those who have demanded this extraordinary precaution seem to suspect that all is not well with regard to the preparation of vaccine lymph in India. Our readers might remember that the issuing of the Vaccination Certificates by registered medical practitioners was a subject for comments in these columns last January when we protested against a notification by the Director of Public Health demanding the counter-signature on the Vaccination Certificates issued by registered medical practitioners to intending passengers to foreign countries, by a particular class of Government medical officers and we informed our readers that at the last session of the Madras Medical Council a resolution was moved by Dr. V. Rama Kamath and passed unanimously by the council, requesting the Government to withdraw the notification under reference.

The reply from the Government on this resolution has not been received so far by the Medical Council. In the meanwhile the new form for issuing the Vaccination Certificates for intending passengers to foreign countries had been published by the Government through the Departmental Head. Whatever might be the justification for the new form of Vaccination Certificates, we should say the form of certificate now demanded by the authorities concerned seem to be fraud-proof in all possible ways.

Under the circumstances no time should be lost by the Government to remove the slur on the profession by demanding countersignature on the Vaccination Certificate and we trust the Surgeon General with the Government of Madras who is also the President of the Madras Medical Council will soon induce the Government to do the needful in the matter.

Quackery encouraged: During the regime of Lt. Col. Webb as the Director of Public Health in the Madras Presidency, he permitted his non-medical subordinate staff to do anti-cholera inoculation and his action was not only approved by the Government and the Government did also publish their approval in a communique which appeared in the Madras dailies some time ago. Soon after, we talked about this matter though casually both with the Surgeon-General and the then Acting Director of Public Health and protested against the action of the Government in supporting the unprofessional action of Lt. Col. Webb, especially now when there is no dearth of qualified practitioners even in villages and expected that both these officers would find their way to inform the Government about the feelings on this subject amongst the medical practitioners. The Rural Medical Practitioners of this province who met in conference at Bezwada last April passed a resolution requesting the Government not to permit the lay staff of the Public Health Department to do the work expected from qualified practitioners. It is reported to us that the anti-cholera inoculation is still being done by Sanitary Inspectors and at times by Vaccinators.

Government have little or no control over quacks nor do they attempt to put

down quackery with the result that majority of the public especially in villages have recourse to quackery in spite of the existence of qualified practitioners. A large number of quacks are either qualified compounders or those who have worked as probationers or dressing boys in hospitals or under qualified practitioners and these quacks are playing a havoc on the illiterate credulous masses with their persuasive tongue. If the Government now entrust the work of anti-cholera inoculation to non medical men especially in the villages, at least a few of these who are unscrupulous will trade upon the ignorance of the villagers and call themselves medical practitioners specially recognised by the Government and the Government will be surely responsible not only for encouraging quackery but add to the number of existing quacks.

Corporation Health Officer co-operating: In the combined issue for February and March, we referred to the non-co-operating attitude on the part of the Health Officer, Corporation of Madras in refusing free supply of Cholera Vaccine to the practitioners in the city during the Cholera Epidemic. We also mentioned that on enquiry the Health Officer informed us that he had definite instructions from the Director of Public Health that private agencies should not be utilised either for vaccination or for anti cholera inoculation without the specific sanction of the Government. We suggested to the Health Officer through the medium of these columns that he would do well in the interest of public health to take general permission from the Government for the supply of anti-cholera vaccine instead of refuse supplying the vaccine to the practitioners who offer free services to the public, especially during the prevalence of an epidemic. We are glad to note that the Health Officer, Corporation of Madras, has since issued a circular to supply anti-cholera vaccine to the registered medical practitioners on condition that the practitioners to whom the vaccine is supplied should furnish the names and addresses of the persons whom they have inoculated.

Obnoxious Supercession Again: The Inspectors appointed by the Indian Medical Council recently inspected the Vizagapatam Medical College and seem to have made certain recommendations regard-

ing the improvement of the staff etc., so as to enable the Council to recognize this institution. Qualifications of the teaching staff and the numerical strength of these should only concern the Medical Council. The cadre from where teaching staff are recruited cannot under any stretch of imagination be questioned by this Council. Yet the Principal of the Medical College, Vizagapatam is said to have raised serious objection for styling only two amongst the teaching staff as lecturers and is said to be pressing the Surgeon-General to recommend to the Government to promote these two who are now in the Assistant Surgeon grade to the cadre of Civil Surgeon so that they could be styled as Professors so as to raise the dignity of the college. The Provincial Medical Service has at present only two cadres, the Civil Assistant Surgeons, and the Civil Surgeons and a few years ago a special cadre for the teaching of Physiology and Anatomy was brought into existence. On or about 25-5-34 the Local Government passed orders fixing not only the number of Professors and Lecturers from the above cadre but also their pay. The Government did recognise the mistake committed by them in promoting junior Assistant Surgeons to the rank of Civil Surgeons superseding many above them and they therefore posted Assistant Surgeons with high university qualifications as lecturers in the teaching institutions. Though we were and are still against the unjust policy of supercession, we did point out to the Government more than once in these columns that the Assistant Surgeons posted for the teaching appointments to the College should be styled as Professors and Assistant Professors depending upon the nature of work they do in these institutions and paid adequate allowances. If some Assistant Surgeons were able to qualify themselves for Foreign qualifications it was purely due to luck, as merit and service were not taken into consideration while these Assistant Surgeons were recommended for study leave. A few Assistant Surgeons were fortunate to come in close contact with influential medical officers who not only recommended the Assistant Surgeons for study leave but were able to push them up as Civil Surgeons superseding many senior Assistant Surgeons. There has been and there is still discontentment in Provincial Medical Service on account of such supercession. We trust the

Government will not repeat its old obnoxious policy.

C. P. Government's self insulting order: Three months ago it was brought to our notice that the Government of C. P. have promulgated an order placing serious and unjustifiable restrictions on the medical licentiates with regard to the issuing of medical certificates by them to gazetted or non-gazetted officers under the Government. Before commenting on this piece of news we wanted to make ourselves sure that the Government of C. P. have not closed the Medical School run by them and that the C. P. Medical Council was functioning. We have been since informed that the Medical School still exists so also the C. P. Medical Council. The order as published in the C. P. Medical Manual requires the following conditions to be fulfilled before a medical licentiate desires to be authorised to issue medical certificates to the Government gazetted or non-gazetted officers.

(a) Eleven years of professional standing in the province.

(b) The production of certificates as to popularity and professional ability.

(c) The production of other credentials.

The order contains also the following penal clauses:

"Any medical practitioner authorised to grant certificates if found guilty of abusing this privilege may be debarred from granting such certificates without the countersignature of the chief medical officer of the district.

In all cases in which the privileges has been withdrawn the fact shall at once be communicated to the person concerned by Inspector-General of Civil Hospitals, and a copy of the orders passed by him shall be published in the Central Provinces Gazette."

The Diploma granted to the Licentiated Medical Practitioners in C. P. must contain a sentence to the effect that the holder of such diploma is qualified to practice, medicine, surgery and midwifery. The granting of a medical certificate by a medical practitioner to his patient, whether he be in Government service or otherwise, is part of the treatment the practitioner has to prescribe to his patient to get well. When a person is ill the most essential part of treatment to get well is rest and the attending physician alone is the competent person to judge

the period of rest. If he is considered not competent to prescribe rest to his patient the practitioner cannot be considered fit to treat the patient with drugs—certainly a more serious responsibility. The C. P. Government did not so far prevent the medical licentiates from treating the sick soon after they passed out of the medical school without making them wait for eleven years. The recent order of the Government with the conditions contained therein indicate that some screw is loose somewhere in the C. P. Government machinery. Or else the Government would not have passed such an order insulting itself; forgetting that the Government was responsible for the granting of diploma to medical licentiates mentioning therein that they are qualified to practice medicine, surgery and midwifery. The C. P. Medical Council is the proper authority to take up this question as this body is also indirectly insulted having been responsible for registering the medical licentiates in their medical register recognising them as qualified practitioners. But being a official ridden body as other provincial councils are, the C. P. Medical Council might not be bold to protest against the insulting order of the Government. All the same we presume that there will be atleast a couple of non official medical practitioners as members of the Council and this number would suffice to table a resolution of protest and get the same seconded to start a discussion in the Council and we trust the non-official members of the C. P. Medical Council will act their part. Protest meetings by the Medical Associations not only in C. P. but in other provinces, will certainly have a moral effect. A most practical and befitting protest may be made by the students of the C. P. Medical School who should stop attending the school till the C. P. Government rescind their order as there is no use of their passing out of a school whose diploma is not recognised by the Government. The action on the part of the students is not only justifiable but will also have immediate effect.

**Correspondence Reports Etc.,
Memorandum for the formation of
a Post-Graduate Institution under
the auspices of the Old Students'
Association to commemorate
the Centenary of the Medical
College, Madras.**

1. The need for Post-Graduate study, brushing up of knowledge, and keeping oneself upto date in all branches of Medical Science is badly felt by all medical men especially in the mofussil.

2. There is no adequate provision for acquiring knowledge in any branch of medicine at present either in the metropolis or in the mofussil.

3. Medical men after a few years practice especially in mofussil, feel that they are not keeping upto date in an ever advancing Science like medicine, and do not know the method by which they can periodically replenish their knowledge. There is no post graduate institution anywhere in India where one can brush up one's knowledge in all branches of the Medical Science.

4. It is therefore proposed that a post-graduate institution on the lines of working of either Edinburgh or Glasgow Institutions, may be founded under the auspices of the Old Students' Association in commemoration of the Centenary of the Medical College.

5. At present it may be commenced with either one or two courses lasting for six weeks each on the lines of the General Practitioner's course in Edinburgh where intensive clinical instruction is given in Surgery, Medicine, Midwifery, Gynaecology, Venereal Diseases, Diseases of the Ear, Nose and Throat, Ophthalmology, Mental Diseases, Infectious diseases, Children's diseases etc.

6. The exact syllabus of instruction, number of students to be instructed, fees for instruction, selection of clinical teaching staff etc., may be worked later by a committee.

7. Later on the institution may take up specialised training in various subjects as required.

Finally, as more and more importance is being attached all over the world for Post-Graduate training, it is time that Madras should start the scheme at least now as a fitting commemoration of the Centenary of the Medical College.

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List of Postings of Sub-Asst. Surgeons for the month of July, 1935.

No.	Names of Sub-Asst. Surgeons.	From.	To
1	Dr. Mrs. S. Thomas	Leave	Munro Hl., Gooty.
2	„ P. K. Gopalan	Plague duty, Calicut Municipality	L. F. Dy., Oratanadu, Tanjore Dt.
3	„ N. Krishnaswami Iyer	...	Cholera duty, Conjeevaram Municipality.
4	„ M. Sreedharamurthy	L. F. Dy., Kota	Govt. Hl., Gudur, Nellore Dt.
5	„ S. Ramachandra Rao	...	Govt. Hl., Kanigiri, Nellore Dt.
6	„ P. Kesavan Nair	L. F. Dy., Mandapam	Govt. Dy., Devakottah.
7	„ Miss. V. Kalyani Ammal	Leave	Presidency Jail for women, Vellore.
8	„ Miss. K. Parvati Devi	Presidency Jail for women, Vellore	Govt. Hl., Gudalur, Nilgiris.
9	„ E. M. Lakshminarayana	L. F. Dy., Kota, Nellore Dt.	Govt. Hl., Chicacole.
10	„ M. Gopala Menon	L. F. Dy., Nachiarkoil, Tanjore Dt.	At the disposal of Inspector-General of Prisons, Madras.
11	„ K. V. Mahadevan	Dt Jail, Madura	L. F. Dy., Nachiarkoil, Tanjore Dt.
12	„ M. Subba Rao	Govt. Hd. Qrs. Hl., Masulipatam	L. F. Dy., Gannavaram.
13	„ Miss C. H. Aley	Govt. Hl., Nandigama	Govt. Hd. Qrs. Hl., Guntur.
14	„ K. Kalyanaraman	Govt. Hd. Qrs. Hl., Palamcottah	Agency duty, Vizagapatam.
15	„ R. Sundararajan	Cholera duty, Palni	L. F. Dy., Nilakottai.
16	„ K. N. Chamukutti	L. F. Dy., Nilakottai	P. W. D. Dy., Thekkady.
17	„ K. Tyagarajan	P. W. D. Dy., Thekkady	Govt. Hl., Dindigul.
18	„ M. Varantharumperumal	Govt. Hl., Dindigul	Govt. Hd. Qrs. Hl., Madura.
19	„ S. Srimannarayanamurthi	Leave	L. F. Dy., Darsi, Nellore Dt.
20	„ K. Pichu Iyer	L. F. Dy., Enangudi, Tanjore Dt.	L. F. Dy., Manamelgudi, Tanjore Dt.
21	„ I. D. David	Leave	Govt. Hd. Qrs. Hl., Trichy.
22	„ M. S. Kuppuswami Iyer	Govt. Hl., Srirangam	At the disposal of Inspector-General of Prisons, Madras.
23	„ K. Avudainayagam	L. F. Dy., Cheyyur	L. F. Dy., Cheyyur, Chingleput Dt.
24	„ K. Panduranga Prabhu	Central Jail, Vellore	Govt. Hd. Qrs. Hl., Cuddapah.
25	„ V. Bhavanarayana	L. F. Dy., Rayachoti	Barnard Institute of Radiology, Madras.
26	„ K. Gopalan Nambiar	Govt. Hd. Qrs. Hl., Coimbatore	Govt. Hd. Qrs. Hl., Madura.
27	„ K. Venkataramana Rao	Barnard Institute of Radiology, Madras	Govt. Hd. Qrs. Hl., Coimbatore.
28	„ M. V. Natesan	Govt. Hd. Qrs. Hl., Madura	Govt. W. & C. Hl., Tirupattur, N. Arcot Dt.
29	„ Miss. V. Kalyani Ammal	Leave	Govt. Hl., Tiruvannamalai.
30	„ Miss. A. Pankajam	Govt. W. & C. Hl., Tirupattur	Presidency Jail for Women, Vellore.
31	„ Mrs. A. K. John	Govt. Hl., Tiruvannamalai	L. F. Dy., Thondamuthur, Coimbatore Dt.
32	„ K. Narayana Nair	Govt. Hd. Qrs. Hl., Ootacamund	L. F. Dy., Payyanur Malabar Dt.
33	„ K. Govindan	L. F. Dy., Thondamuthur	Koraput Agency duty.
34	„ R. Srinivasa Iyer	Leave	Govt. Hd. Qrs. Hl., Vellore.
35	„ C. Chintan Nair	Koraput Agency	Vizagapatam Agency duty.
36	„ A. P. Joseph	Leave	Queen Mary's College, Madras.
37	„ Mrs. Chellamma Nilakantan	Lady Willingdon Medical School for women, Madras	Govt. Hl., Mayavaram, Tanjore Dt.
38	„ Mrs. E. J. Pitchai Pillai	Queen Mary's College, Madras	D. M. O. East Godavari Dt., for Agency Duty.
39	„ L. V. Jagannadha Rao	Leave	L. F. Hl., Kurupam, Vizagapatam Dt.
40	„ P. Suryanarayana	L. F. Dy., Repalli, Guntur Dt.	L. F. Dy., Chintalapudi, West Godavari Dt.
41	„ K. Sreenivasamurthy	Leave	Govt. Hd. Qrs. Hl., Masulipatam.
42	„ K. Chinnappa Reddi	L. F. Dy., Chintalapudi	L. F. Dy., Chagalamarri, Kur-nool Dt.
43	„ B. Jagga Raju	Govt. Hl. Qrs. Hl., Ellore	

The Tinnevely District Medical Association.

The Tinnevely District Medical Association held its monthly meeting on Sunday the 28th July 1935 at Courtallam (Jamal Palace). Members numbering 57 including some lady doctors gathered from all parts of the District. Some of the officials and non-officials graced the occasion. All the members had an early bath in the excellent waterfalls which were in full swing. There was fine drizzling and the members enjoyed the season well. Mr. I. C. Iswaran Pillai, M.L.C., the President, District Board, Tinnevely, was present for the best period of the function.

After fine dinner the meeting began at 2-30 P.M., under the presidency of Lieut. Col. T. S. Shastri, the President of the Association. The minutes of the last meeting were read and passed. Dr. K. Kalyanaraman, read very interesting case notes on Pyloric Stenosis and Tuberculous kidney. This kidney patient who is now in very good health was shown to the meeting. Rare and interesting specimens of

(1) Epithelioma of eyeball, (2) Cancer breast, (3) Tumour Testis and (4) Tuberculous kidney successfully operated by Lieut. Col. T.S. Shastri, I.M.S., were demonstrated.

Then the discussion on "Dyspepsia" was resumed from Papanasam meeting by Dr. A. L. Anantanarayana Iyer, of the Government Hospital, Tenkasi. There was a lively discussion on all the operated cases referred to above. After the discussion Lieut. Col. T. S. Shastri, summed up the salient and important features in the correct and proper diagnosis of Dyspepsia, reviewing the most successful methods adopted in the treatment. After a hearty vote of thanks to the President, the meeting dispersed.

After tea, the party reached Tenkasi where a Health Exhibition was arranged at the Elementary Weavers' School. School boys and girls of Tenkasi and its neighbourhood assembled. The girls of the school gave an entertainment on "Kolattam" singing health songs, (songs about the mischief of flies and some other health songs). Lieut. Col. T. S. Shastri, welcomed the guests and requested Mr. I. C. Iswaran Pillai, the Presi-

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dent, District Board, Tinnevely, to open the Exhibition. The exhibition was opened by him at 6-30 P.M. He expressed in a short speech that such exhibitions were very useful and beneficial to the masses and promised his hearty co-operation. Dr. G. Parthasarathy, of Tenkasi, delivered an interesting lecture in Tamil on the prevention and causation of Tuberculosis, Leprosy and Cholera, explaining the posters on the subjects which were exhibited on the walls, in easy Tamil for the benefit of little children.

Under the auspices of the Tinnevely District Medical Association a Health Exhibition was arranged at the Municipal Office, Palamcottah on Saturday the 24th August 1935.

Lieut. Col. T. S. Shastry, the President, welcomed the guests and requested Mrs. D. D. Waran, the President of the Local Red Cross Society, to open the Exhibition. The Exhibition was thrown open by Mrs. Warren at 9 A. M., who expressed in a short speech that such exhibitions were very useful and beneficial to the masses. Dr. K. Rama Ayyar of Tinnevely Town gave an interesting lecture on the prevention and causation of Tuberculosis, Leprosy and Cholera.

The President's Function of The Tinnevely District Medical Association was held at its monthly meeting, on Sunday the 25th August 1935, at the Masonic Lodge, Palamcottah. Members numbering 85, including some lady doctors gathered from all parts of the District. Some of the officials and non-officials graced the function.

Lieut. Col. T. S. Shastry, was "At Home". An enjoyable dinner was served to all present at 11-30 A.M. After dinner the guests were entertained to music. Mr S. Lakshmana Iyer, Head Clerk, District Medical Officer's Office, Palamcottah, who retired on 16-8-35 was presented with a silver plate and vessels by the District Medical Staff for his devoted service for 28 years.

Lieut. Col. T. S. Shastry, thanked the guests for their kind response to his invitation. He made an appeal to the audience to take keen interest in the welfare of the patients by giving free gifts to the hospital such as gramophone records, providing funds for the installation of a Radio Station and for equipping the hospital with pathology, X-Ray, and Radium Institute so as to make the Head Quarters Hospital an efficient and modern institution. Mr. Sadhu Ganapathi Pantulu Garu B.A., B.L., a leading Advocate of the place responded on behalf of the guests and thanked Colonel Shastry, for his invitation and appreciated his keen interest in trying to alleviate the sufferings of humanity and to improve in many ways the efficiency of the Medical Profession in the District.

The business proper of the meeting began at 2-30 P.M. Dr. J.T. Mosses, L.M.P., showed an interesting case of a swelling in the abdomen. Dr. G. S. Narayana Iyer, L.M.P., of Moolaikaraipatti showed an interesting case of penile fistulae. Interesting case notes on (1) "Hanging" urethra in a female (2) a tumour on the posterior aspect of the urethral meatus in a woman, (3) thickened Humerus due to syphilis, (4) Massive cancer of the bladder, and (5) polypus in the rectum, were read. There was a lively discussion on these cases. Dr. K. Padmanabha Iyer of

Tenkasi read an interesting paper on "Nature Cure". After the discussion Lieut. Col. T. S. Shastry, summed up the salient and important features of all the cases.

The East Godavari District Medical Association, Cocanada.

The monthly meeting of the Association took place this time at Ramachandrapuram on 24-8-35. Captain J. S. Mc. Millan presided. The Ramachandrapuram group of members were at home to the Association. 38 members from all over the District attended. Dr. T. Kanakaraju of Ramachandrapuram read a paper on "Tansilectomy". Dr. T. Chelapathy Rao of Ramachandrapuram read a paper on "Infants Food including Patents". Dr. C.V. Subbarao read a paper on "Approach to the bed side". Dr. V. C. Kamaraju of Cocanada read some case notes on some interesting cases of "Acute Gastro-Enteritis in children", and said that in his experience the Sodium Sulphate toxin elimination treatment combating dehydration and acidosis with Soda bicarb and Saline by mouth if early and intraperitoneal if late on a rigid starvation and subsequent and correct dietetic treatment gave most encouraging results in the treatment of Bacillary desentry in children.

Captain Mc. Millan while agreeing emphasised the point that most of the failures in the treatment are due, not only to not following correct lines as above but also diffidence on the part of the doctor in pushing on Chologogue sulphate treatment which must be vigorously pushed on in 20 grain doses for a child of one, every hour as many times as the child is awake during the 24 hours until all mucus disappeared and the motions are entirely faecal.

After an enjoyable dinner the guests dispersed.

The Trichinopoly District Medical Association.

A monthly meeting of the above association was held at 5 P.M., on Saturday the 20th July '35, at the E. R. High School, Teppakulam, Trichinopoly when about 45 members were present. Dr. C.E.R. Norman, Chief Medical Officer, S.I.Ry., and President of the Association presided and Dr. N. C. Subramanyam was 'At Home' to the members.

The Secretary moved the following resolution which was carried unanimously:-

"This Association requests the District Medical Officer, Trichinopoly and President, District Board, Trichy to issue a general circular to their medical subordinates permitting them to attend meetings of the District Medical Association which will be held on Sundays, penultimate Saturdays or on holidays, so as to obviate the necessity of applying for permission each month".

Dr. B. S. Viswanathan of Coimbatore delivered an interesting lecture on 'MODERN TREATMENT OF TUBERCULOSIS' and discussed the different methods of treating the disease at various stages. He also demonstrated an 'Artificial-pneumo thorax' apparatus and explained its technique. He showed a number of skiagrams of 'Tubercular lung' and at various stages of treatment.

Dr. Rajan demonstrated a case of acute Pulmonary Tubercular lung which showed remarkable improvement under 'Pneumothorax treatment'. Then an interesting discussion followed in which many members took part.

The Chettinad Medical Association, Kanadukathan.

The usual monthly meeting of the above Association was held on 28-7-35, at S. M. Hospital Tirupattur, under the Presidentship of Dr. Mangalam Pillay, in the

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THE MANAGER.

absence of the President. About 20 members were present. After tea, arranged by the hosts, Dr. T. S. Shetty, the Secretary read the minutes of the Association.

Dr. T. S. Shetty gave out three interesting case reports, two of Diphtheria cases, one in a child of 3 years, another in an adult of 35 years both Indians, curiously enough at the same time, one coming from Madura, another from Ramnad District. He wanted to know if any doctors had any case in their practice. Dr. F. Y. Sander, cited two cases from his experience. There was a discussion on the advisability of doing Tracheotomy in advanced cases with breathing trouble, but Dr. Sander, suggested that intubation is a better method and more

easily done but hospitalisation is essential lest the tube be coughed out.

Dr. Shetty spoke about an interesting case of cerebellar abscess operation he had done in his hospital, in a case of neglected mastoid infection. Dr. Victor reported of two orbital tumours he had operated in S.M. Hospital.

Dr. F. Y. Sander, demonstrated some interesting X-ray films of the Gastro Intestinal tract. After this an interesting lecture on 'Record keeping' was delivered by Dr. D. O. Sendel. He suggested some novel and very easily manageable record keeping for all outpatients both in private and public institutions.

VACCINATION CERTIFICATE.

(Referred to in the News and Comments Columns).

Station.....
Dated,.....
I,(name in block letters) Registered Medical Practitioner,
hereby certify that Mr. (Mrs. or Miss)..... Identification marks
1. 2. etc.
aged..... has been vaccinated on date..... with vaccine lymph issued from
the..... Revaccinated on date.....
the..... Institute.
Date of issue of lymph.....
Calf No.....
Date of receipt of lymph.....
Date of Vaccination.....

Signature
(Registered Medical Practitioner).

JAIL FOR SALE OF SPURIOUS DRUG

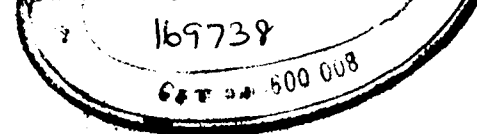
"I feel that the public need to be protected from such heartless exploitation of the sick and the injured." With this remark Mr. Oscar H. Brown, Presidency Magistrate, Bombay, passed a sentence of one month's rigorous imprisonment and a fine of Rs. 250 on Vadilal Mohanlal, an employee of a stationery firm on a charge of selling a spurious "Antiphlogistine". "The accused," the Magistrate further commented, "exploited a well-known drug which is largely used by the medical profession and known even by laymen simply by the name. In cases of dangerous illness incalculable harm may be done by the use of a drug which is not as efficacious as the one prescribed by a doctor." In default of fine Vadilal was ordered to undergo further imprisonment for three months.

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Excerpted from "THE TIMES OF INDIA."

(The above is published at the special request of Messrs The Denver Chemical Mfg. Co.).



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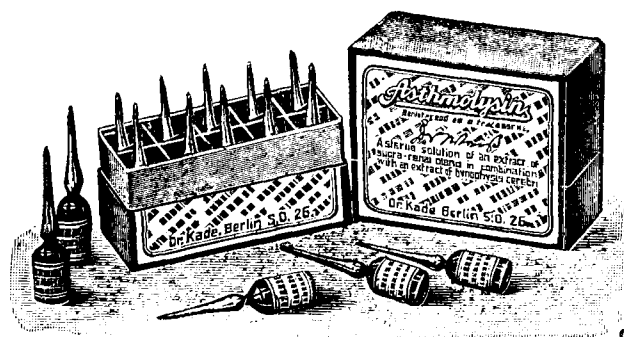
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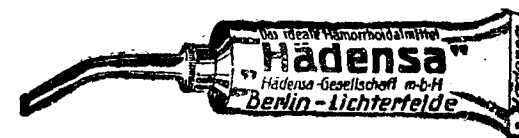
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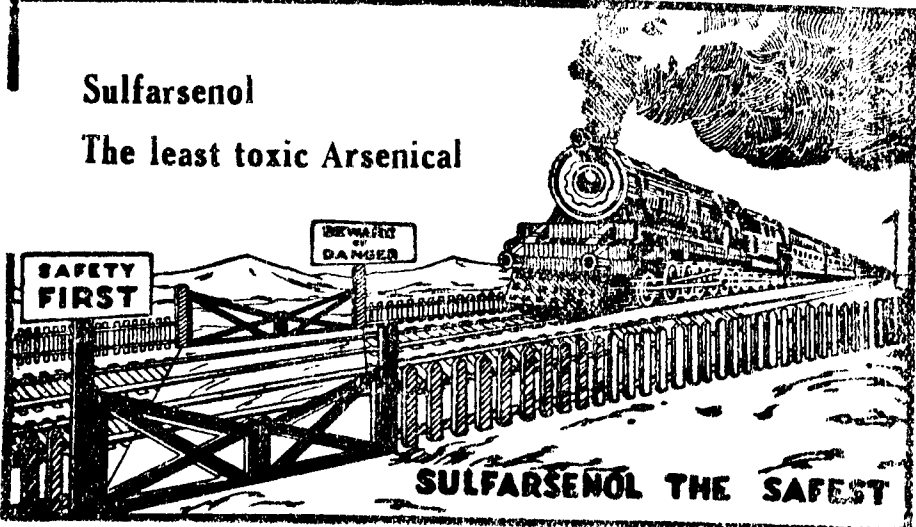
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