THE CADUCEUS.

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2. A. The object of the Society shall be to hold meetings at which papers shall be read, or discussions held, on medical and general subjects: and to promote social intercourse among its members.
   B. The Society shall produce a journal to be called the "Caduceus" as a record of the proceedings of the Society, and for the publication of original articles in Medical Science
3. All undergraduates, graduates and members of the teaching staff of the Medical Faculty of the Hongkong University shall be members of the above Society; and also such other persons as may be elected at a general meeting. Medical Practitioners registered in Hongkong shall be invited to join the Society as members.
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7. Each member shall pay an annual subscription of $4 which shall be payable at the commencement of the academic year. The Honorary Secretary shall also act as the Honorary Treasurer.
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OBSERVATIONS ON DYSENTERY. *

by

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The study of Dysentery in the tropics is apt to suffer from the contempt engendered by familiarity. Enteric Fever takes a prominent position in the sanitation records of all countries, and in tropical regions lying round the Pacific this disease forms an important factor in vital statistics, but Dysentery in spite of a higher mortality rate comes in for little or no comment.

In Hongkong, the collation of accurate vital statistics is notoriously difficult and the records are limited, but the Report of the P. C. M. O. for the year 1922, gives some striking figures. In the Tung Wah Hospital for instance, there were 48 admissions for Enteric with 35 deaths, but for the same period there were 323 admissions for Dysentery with 124 deaths. In the Kwong Wah Hospital there were 4 admissions for Enteric with 4 deaths, while there were 85 admissions for Dysentery with 39 deaths. In the Government Civil Hospital the corresponding figures were 27 admissions for Enteric with 6 deaths and 55 admissions for Dysentery with 4 deaths.

Another disease of unusual prevalence especially among the Europeans in South China is Sprue, and the relationship of Dysentery to Sprue, whether as a predisposing or as a causal agent, is certainly worthy of investigation.

The figures I have given, though somewhat scanty, are perhaps sufficient to indicate that in terms of morbidity and mortality, Dysentery must take precedence to Enteric as a serious menace to the health of the colony. And yet all modern medical authorities classify dysentery as a disease which is eminently amenable to treatment.

* Read before the Hongkong branch of the British Medical Association.

The high death rate in this district seems to call for a careful scrutiny of our methods of dealing with the disease, and as treatment can only be successful if the diagnosis is correct, the problem resolves itself practically into one of early and accurate diagnosis.

In 1903, when Schaudinn published his description of the Entamoeba histolytica and established its pathogenicity, the empirical diagnosis of dysentery ceased to be justifiable. The work of Hiss and Russell, Flexner, Rogers and other investigators has placed the diagnosis on a completely scientific basis, and the term dysentery is now regarded not as a single disease but as a group of diseases arising from different causes, but all presenting similar clinical symptoms associated with diarrhoea, tenesmus, and the passage of blood and mucus in the stools.

In some parts of South China, the three main types of dysentery are found, viz:—

1. Bacillary; due to infection by Bacilli Dysenteriæ Shiga or Flexner Y group.
2. Protozoal; due to the Entamoeba histolytica. A few cases may be due to malarial plasmodia.
3. Helminthic; due to the Schistosoma japonicum.

In this colony, the conditions for the development of the third type, *i.e.*, Schistosomiasis, do not seem to obtain, and so the question of diagnosis becomes limited to two diseases—Bacillary Dysentery and Amoebiasis.

Some clinicians profess to be able to differentiate a case of bacillary from amoebic dysentery by a simple naked-eye examination of the stool. Certainly some stools are characteristic of one or other type but a long experience of dysenteric stools makes one less dogmatic as to the naked-eye appearances. Accuracy in diagnosis can never be attained without the microscope. Faecal specimens deteriorate with such rapidity that it is useless to send a stool to a laboratory unless it can be examined within four hours after it has been passed. It is practically essential therefore that the clinician should be in a position to examine his own cases microscopically and make an immediate, or at any rate, a provisional diagnosis.

With the hope of establishing a workable scheme on which a rapid differential diagnosis could be based, I made some observations on cellular exudates during an outbreak of acute dysentery amongst the active troops in Palestine. At that time I was attached to a casualty clearing station which gathered the sick from the forces operating in front of Gaza. A well-equipped field laboratory was established in the same camp. Instructions were given that every patient admitted with diarrhoeic symptoms was allotted a clean bed-pan, and his first stool after admission was immediately conveyed to the laboratory where a microscopic examination of the fresh specimen was carried out, often within 15 minutes after defaecation. A likely piece of stool was selected, and transferred by means of a platinum loop to a clean slide. A cover slip was then superimposed and gently pressed down so as to give an even transparent film of a thickness sufficient to allow free movement of any contained entamoeba.

Cellular Exudate in Bacillary Dysentery.

When a film of the blood-stained muco-pus from the scanty gelatinous stool is placed under the microscope, the most striking feature is the abundance of cells and the scarcity or absence of digestive debris. The cells found consist of varying proportions of the following types:—

(*a*) Polymorpho-nuclear leucocytes. These form the majority of the cells in all stages of the disease. They may have the normal fresh appearance of healthy leucocytes, but more frequently they are swollen and altered in a characteristic manner. The cytoplasm undergoes a fatty degeneration, the nucleus becomes distended and ghost-like, and the cell dies "en masse." This appearance is very different from that found in amoebic dysentery where the leucocytes seem to undergo a digestive process, and become progressively reduced in size owing to a marginal disintegration.

(*b*) Other blood cells. The red corpuscles vary considerably in number according to the stage and the degree of acuteness of the attack. In sub-acute or chronic cases where the stool is composed largely of mucus, there may be an entire absence of red cells in the field, whereas in amoebic dysentery they are present in nearly all cases.

(*c*) Lymphocytes and large mono-nuclear leucocytes are present in negligible proportions, while eosinophiles are very seldom seen.

(*d*) Macrophages. These are derived probably from the endothelial lining of capillary walls, vascular as well as lymphatic. In size they are generally larger than any other cells in the stool, measuring 15-30 microns in diameter, and have a large well-defined nucleus of reticular structure, ex-centric in position. The cytoplasm is not refractile, but is often vacuolated, and may contain red and white blood corpuscles, *i.e.*, they are phagocytic. The size and shape of these cells and the presence of included particles sometimes render it a difficult matter to differentiate them from Entamoebæ, but the motility and refractility of the latter are usually conclusive.

In bacillary dysentery, macrophages form a small proportion of the total exudate but their size and characteristic appearance mark them out for special attention. Like the polymorphs, they are found in various stages of degeneration, the cytoplasm becoming granular, vacuolated and then hyaline; the nuclei becoming granular, distended and finally broken up and scattered as irregular fragments throughout the cytoplasm.

(*e*) Epithelial cells, either columnar or squamous. In the early inflammatory stage of the disease, there may be very few of these cells, but in the later desquamative phase they are often found in large numbers.

(*f*) Plasma cells and irritation cells are present in small variable proportions, depending apparently on the depth to which ulceration of the gut wall has taken place.

Cellular Exudate in Amoebic Dysentery.

The differential diagnosis of the two main types of dysentery would seem to present little difficulty if one is dealing with ordinary uncomplicated cases; the microscopic examination in a fresh amoebic specimen presents a very different picture from that just described. The most striking feature here is the scantiness of the cellular exudate unless, as is sometimes found, the specimen consists of almost pure blood from ulceration through the wall of a vessel. With regard to the cells that are present, they consist of:—

(*a*) Polymorph leucocytes. These are rarely seen in their normal condition. A proteolytic process is obviously at work, and they are usually partially ingested, giving them a "mouse-eaten" appearance. The process commences at the periphery of the cytoplasm and progresses until only remnants of the nuclei remain scattered throughout the film—a very different picture from that in the bacillary type where the leucocytes die by a massive toxic necrosis.

(*b*) Other blood cells. These also exhibit differences which are equally striking.

The lymphocytes are relatively increased in number and have the same degenerative appearance, while the eosinophiles are markedly increased. The prevalence of eosinophiles is so noticeable that it might almost be regarded as a pathognomonic sign of the presence of entamœbae.

The red blood corpuscles also show a remarkable phenomenon. In bacillary dysentery the red cells are isolated as in diluted normal blood, but in the amoebic type they are generally clumped together in small groups of from two to eight suggesting some agglutinative effect. This phenomenon, so far, does not appear to have been mentioned by other observers.

(*c*) Macrophages. These are very rare in uncomplicated cases of amoebic origin.

(*d*) Epithelial cells. They are usually present together with plasma cells but there is nothing to distinguish them from those found in the desquamation of bacillary origin.

(*e*) Pyknotic bodies. This name has been given to the nuclear remnants of ingested leucocytes. They form the bulk of the elements of the exudate in amoebiasis.

(*f*) The vegetative Entamoeba histolytica or its encysted form. This clinches the diagnosis of amoebic dysentery, but where that organism cannot be found—and Wenyon has pointed out that the chances of not finding it are considerable—then in a case presenting a pathological picture such as has been described, one is justified in reporting it as "probably amoebic dysentery."

To reduce the scheme to figures, I made a count of the cellular elements in 15 cases of Bacillary Dysentery, in each of which the diagnosis was afterwards confirmed by cultural and agglutination tests. In each case 500 cells were counted and the average content emerged as follows:—

Polymorphonuclear Leucocytes ...	90.7 per cent.
Large Mononuclears	1.6 ,,
Small Lymphocytes	2.8 ,,
Eosinophiles	0.01 ,,
Macrophages	1.8 ,,
Epithelial cells	1.5 ,,
Plasma cells	1.6 ,,

In contrast with the above, a series of cases of proved Amoebic Dysentery gave the average cellular contents as follows:—

Polymorphonuclear Leucocytes ...	7.5 per cent.
Large Mononuclears	0.7 ,,
Small Lymphocytes	2.5 ,,
Eosinophiles	3.2 ,,
Macrophages	Nil
Epithelial cells	1.3 ,,
Plasma cells	1.8 ,,
Pyknotic bodies	83.0 ,,

A comparison of these percentages brings out the following salient points.—

Bacillary Dysentery.

1. The Preponderance of polymoryh leucocytes which constitute on an average 90 per cent of the total cellular exudate.
2. Eosinophile cells were seldom or never present.
3. Macrophages were present in limited numbers averaging about 2 per cent. but their size rendered them very conspicuous.
4. Pyknotic bodies were not found in any of the 15 cases under review.

Amoebic Dysentery.

1. The small proportion polymorph leucocytes, the average content being only 7½ per cent.
2. The presence of eosinophile cells was a conspicuous feature, the number varying from 2 per cent to 5 per cent.
3. Macrophages were not found in any of the cases of amoebic dysentery.
4. Pyknotic cell remnants were present in all cases, their average number reaching the very high proportion of 83 per cent.

Treatment.

A patient with acute dysenteric symptoms must be kept in bed. A bed-pan should be used in order to avoid heart-strain. The diet should be easily assimilable but nutritious. The routine employment of milk has now been discarded because milk whether diluted or peptonised readily curdles in the digestive track and the casein clots form an ideal nidus for the growth of bacilli. The most suitable diet is meat extract, thin beef tea, chicken broth, jellies, albumen water, tea without milk, arrowroot, ground rice and cornflour puddings.

Therapeutic treatment is important because in each of the two types of dysentery we have a specific which is inapplicable to the other. In the acute bacillary type, anti-dysenteric serum has proved of enormous value if given early. The Lister Institute prepares an antitoxic and anti-microbic serum in ampoules of 20 cc. and the dose is 40 to 60 cc. given subcutaneously or intravenously. A second dose of 20 to 40 cc. is sometimes indicated, 24 hours later.

At the same time the bowel should be kept flushed with a mild saline mixture, the best being Sod. Sulph. one drachm every 4 hours for the first 24 hours and then less frequently. Under this treatment, the majority of cases are convalescent within a week. A few cases are liable to assume a chronic character and then intestinal anti-septics, rectal injections of Ensol, or even caecostomy with lavage of the large bowel may be called for.

In Amoebic dysentery, the specific is ipecacuanha or its derivative, emetine. The routine treatment generally recommended is 1 grain of emetine given hypodermically every day for 12 days. This is followed by a course of emetine bismuthous iodide (E.B.I.) given daily by the mouth in 3 grain doses for 12 days. To overcome any emetic tendency this dose is made up in gelatin capsule. In spite of vigorous treatment, however, the proportion of recurrences remains disappointing and efforts are being made to obtain a more effective product. Dr. F. Roux recommends injections of total ipecacuanha, a French preparation of soluble nature. Willmore believes that emetine periodide (E.P.I.) as prepared by Martindale, is more effective and less toxic than E.B.I. and he recommends 2 grains of E.P.I. given two or three times a day for 15 days, concurrently with injections of emetine hydrochloride.

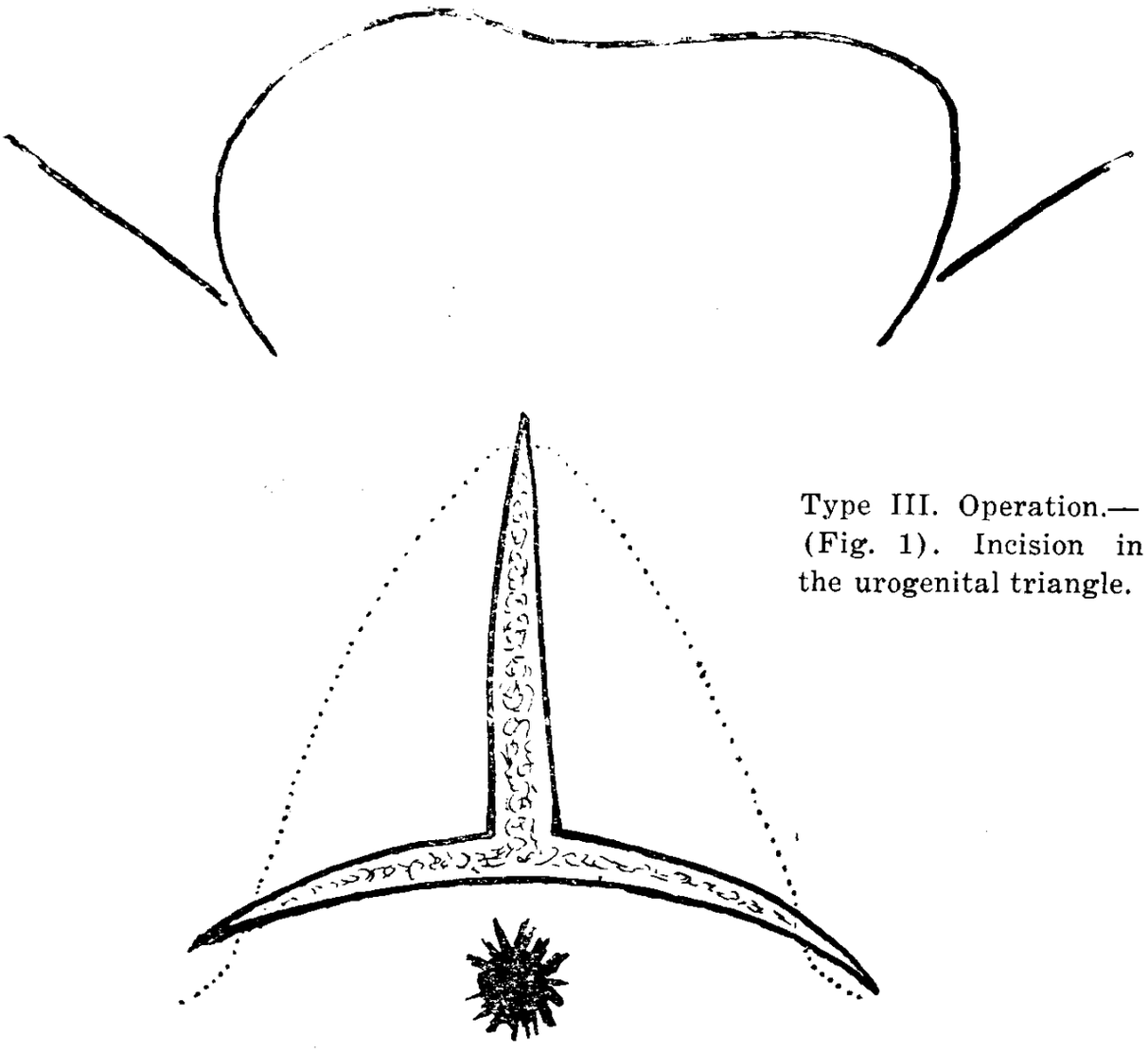
In most cases of dysentery, bismuth and opiates are contra-indicated because they immobilise the bowel and lock up the toxic secretions.

EPITHELIOMA OF THE PENIS

From the Surgical Unit, University of Hongkong.

This note is based on 18 cases of epithelioma of the penis treated in the University Surgical Clinic, the reports of which are briefly abstracted at the end.

The clinical diagnosis was confirmed by pathological examination in all cases except the inoperable ones. Where the slides have been preserved (cases 1, 3, 4, 5, 17, 18), we have personally examined them.



Type III. Operation.— (Fig. 1). Incision in the urogenital triangle.

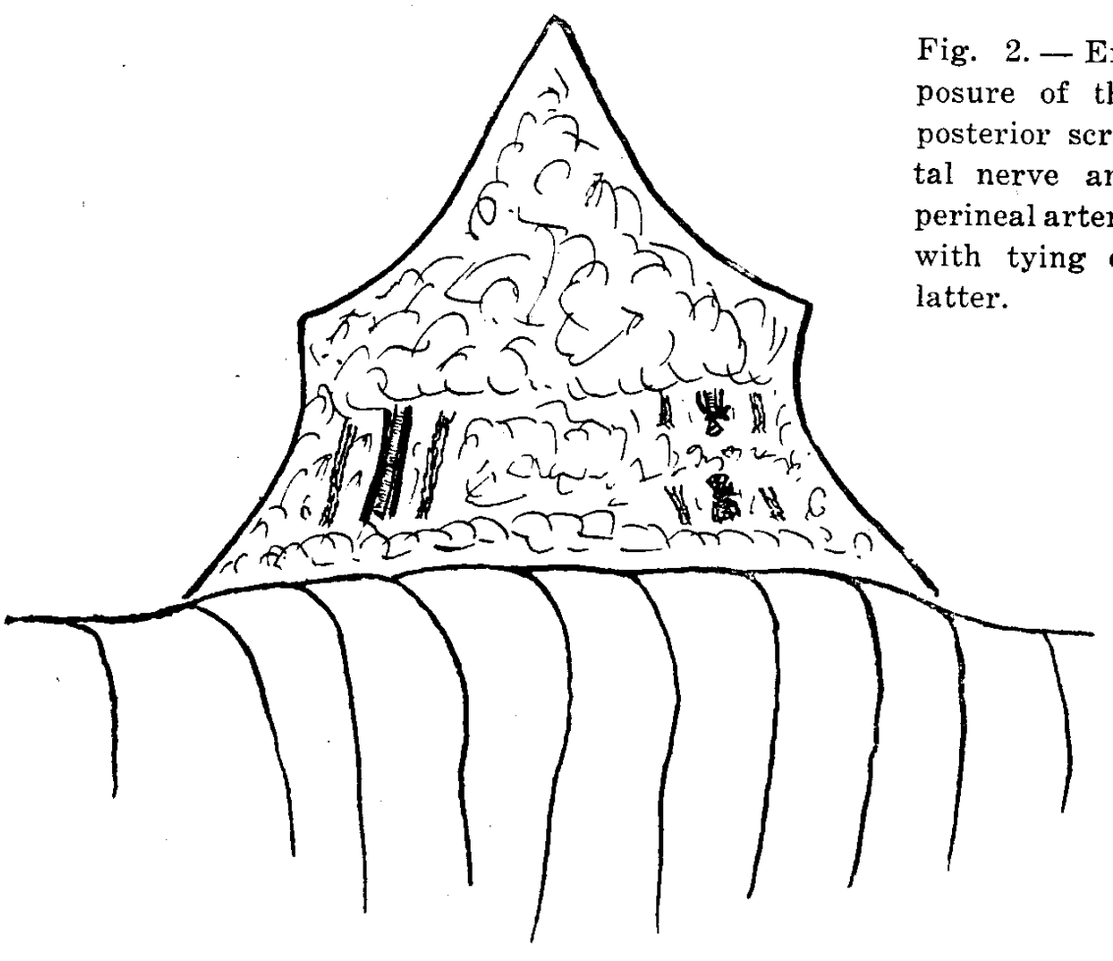


Fig. 2. — Exposure of the posterior scrotal nerve and perineal artery with tying of latter.

Fig. 3.—Ligature of the internal pupendal artery.

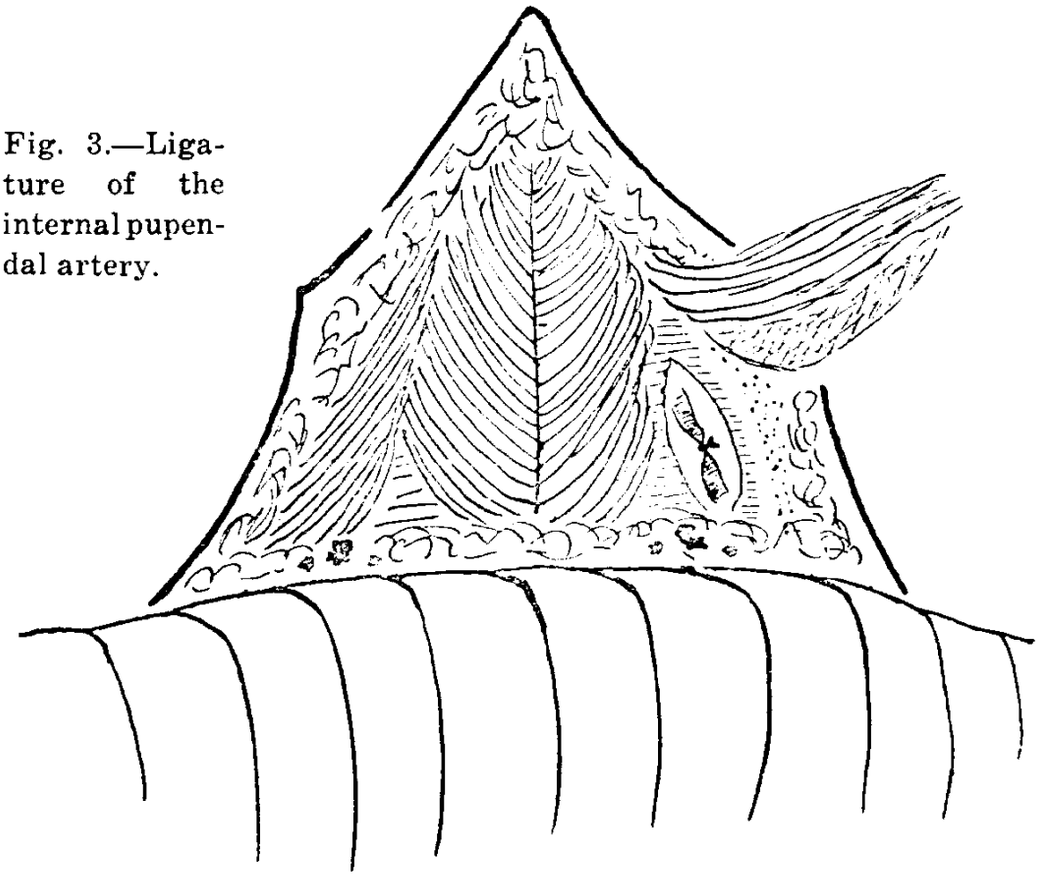
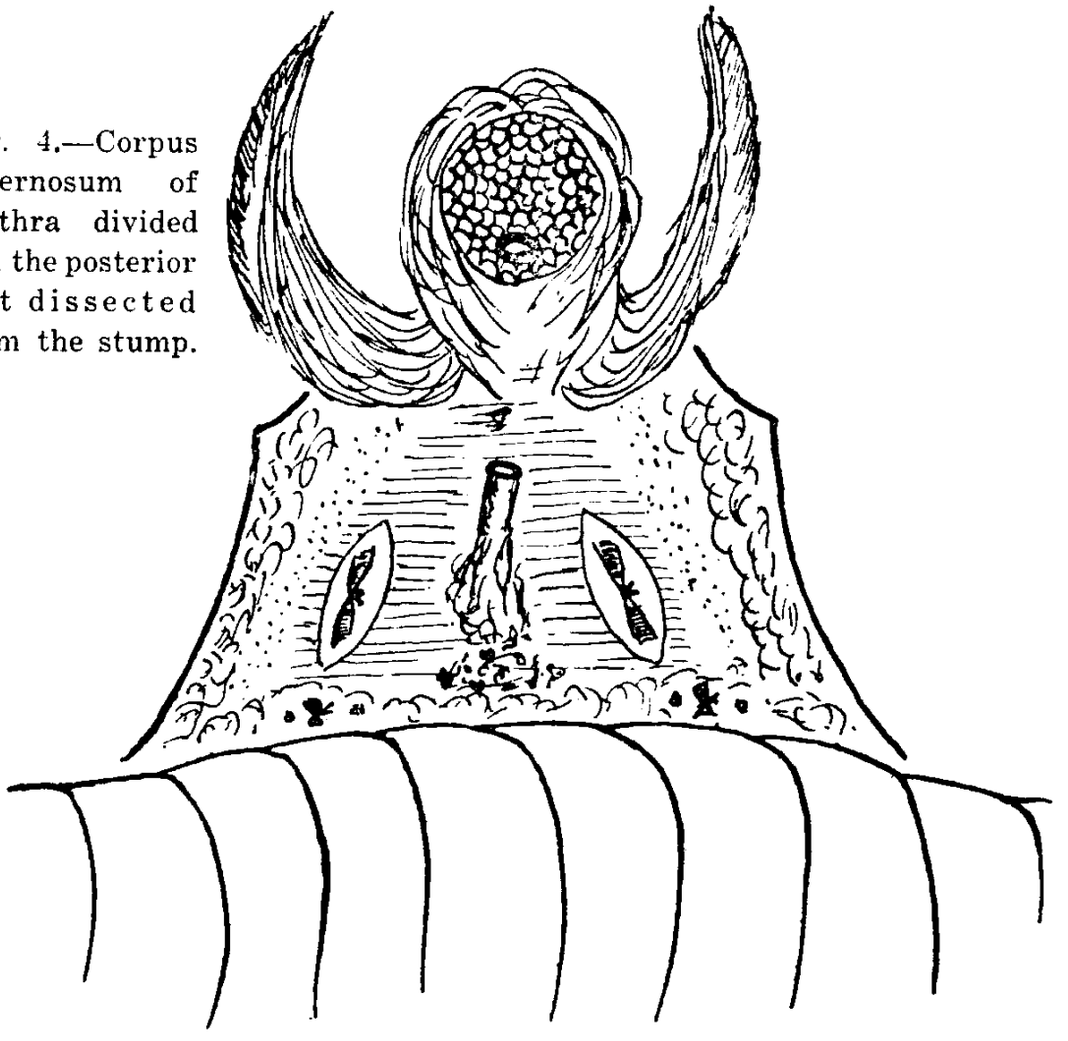


Fig. 4.—Corpus cavernosum of urethra divided and the posterior part dissected from the stump.



Phimosis was definitely recorded in 9 of the cases, and had probably been present in others. The average age of onset was roughly 46.

Operative Treatment:—

(*a*) Type I.—Cases, 1, 2, 3, and 6.

(*b*) Type II.—Case 11.

(*c*) Type III.—Cases, 12, 13, 14, 17, and 18.

(*d*) Cases 7, 8, 9, 10 were inoperable.

(*e*) Case 15 refused operation and case 16 had a partial amputation.

(*f*) Cases 4 and 5 had circumcision performed, the pieces being removed for section.

If the glands were left to a later date, the patient generally refused further operation, a very unsatisfactory state of affairs.

Description of Types of Operation:—

In none of these operations were the testes removed. In passing urine after the operation the patient squatted and raised the scrotum with his hand.

Type I. Extirpation. The incision encircles the root of the penis and runs along the scrotal raphe. The penis with its corpora cavernosa and the urethra with its corporus cavernosum are removed from before backwards and downwards, the many bleeding points being caught and tied as they are met.

Type II. Extirpation. The corpora cavernosa are raised first and the penis removed from behind.

Type III. Extirpation. A ⊥ incision is made in the urogenital triangle (Fig. 1.) The anus is excluded by clipping a towel to the transverse bar of the ⊥. The posterior scrotal vessels and nerves are divided and the vessels tied (Fig. 2). The hinder ends of the corpora cavernosa of the penis and their muscles are then detached from the pubic arch and turned forwards exposing freely the superficial layer of the urogenital diaphram. The latter is divided and the internal pudenal artery ligatured (Fig. 3). The corpus cavernosum urethrae and the urethra are then divided near the symphysis and the penis removed from behind forwards (Fig. 4). The cavernous tissue about the remaining urethra is carefully dissected away.

This type of operation is relatively bloodless and is satisfactory in performance but cannot be recommended in view of the possible occurrence of gangrene of a piece of the scrotum and of the superficial layer of the urogenital diaphragm as occurred in case 18. (The perineal artery and the posterior scrotal vessels supply the posterior half of the scrotum and the development of a collateral circulation cannot be relied upon with arteries in men over 40 years of age). In dealing with epithelioma of the penis one would like to know clearly the evidence of permeation of (that is, growth along) the

lymphatic vessels and also of growth along the cavernous tissue. Handly has shown that carcinoma of breast and also melanotic sarcoma permeate lymphatic vessels, but full proof is wanting in the case of epithelioma. If it occurs, the penis and the lymphatic tract should preferably be removed in one piece. If only embolism of the lymphatics occur, the two stage operation is the better. In one case of epithelioma of the upper and medial part of the leg, numerous sections of the lymphatic tract to the groin failed to show epithelioma, though glands in the groin contained growth.

Case 16 seems to point to permeation either along the cavernous tissue or else along the lymphatics.

We are indebted to Dr. H. Balean and Dr. R. M. Gibson, for permission to include their cases in our list.

ABSTRACTS OF THE REPORTS OF EIGHTEEN CASES OF EPITHELIOMA OF THE PENIS.

Case 1 (249/1915).

P. T. age 37. Phimosis was present.

History. Four months ago he had exposed himself to venereal infection and the ulceration on the prepuce had followed directly.

Local Lesion. The tumour was irregular in outline, exuded the characteristic smell and had an indurated base. The inguinal lymphatic glands were enlarged.

Operation. Type 1. With simultaneous removal of glands.

Condition on Discharge. The parts were soundly healed.

Case 2 (270/1915).

W. T. age 49. Phimosis was present.

History. 2 years ago the patient felt a small growth the size of a pea on the prepuce. He applied a Chinese plaster on this growth which led to its ulceration and subsequent increase in size.

Local Lesion. The ulcer was irregular with indurated base and gave a characteristic smell. The inguinal glands on the right side were enlarged.

Operation. Type 1 with removal of right inguinal glands.

Condition on Discharge. The parts were soundly healed.

Case 3 (296/1915).

T. T. age 54.

History. Phimosis present. The tumour started as a small ulcer on the external urethral orifice a year before admission.

Local Lesion. An irregular warty ulcer showing marked infiltration. The smell was characteristic. The left inguinal glands were enlarged.

Operation. Type 1. The patient refused subsequent removal of the glands.

Case 4 (64/1917).

W. C. age 37, was admitted for penile ulceration. Phimosis was present.

History. He had had a urethral discharge for a year. Ulceration of the prepuce started near the orifice five months before admission.

Local Lesion. The foreskin was invaded by a warty growth extending to the corona.

Operation. Circumcision was done, the growth being thus locally removed for section, but patient refused further operation.

Case 5 (79/1917).

C. S. age 40. Phimosis was present.

History. There was an eight months' history of growth under the prepuce.

Local Lesion. A hard tumour felt under the foreskin.

Operation. The patient was circumcised, the growth thus being locally removed for section, but he refused further operation.

Case 6 (101/1918).

Y. S. age 32.

History. 7 months ago ulceration started on the glans penis.

Local Lesion. A cauliflower growth with indurated base was situated on the glans penis.

Operation. Type 1.

Case 7 (413/1918).

L. N. age 44 was admitted for fungating ulcers on the glans penis and in the right femoral triangle.

History. Phimosis was present. Venereal disease with swelling of prepuce eight months ago. This swelling burst two weeks before admission, leaving behind a fungating ulcer.

Operation was considered inadvisable.

Case 8 (1/1919).

N. H. age 52 was admitted for growth on the penis.

History. Ulceration began two years ago on the glans penis. The ulcer grew in size and bled a great deal.

Local Lesion. Warty growth on the glans, enlargement of both testes, thickening of both spermatic cords, enlargement of inguinal glands on both sides.

Operation considered inadvisable.

Case 9 (61/1919).

T. C. age 49 was admitted for growth on the penis.

History. Had gonorrhoea for six years. A year ago the white discharge was replaced by a bloody one. This led to the discovery of a tumour on the glans penis. This burst and grew in size. Three months before admission patient noticed a similar growth on the left inguinal region. This also burst leaving behind an irregular ulcer.

Operation considered inadvisable.

Case 10 (102/1920).

T. Y. 43 was admitted for extensive ulceration of penis and groin.

History. Phagaedemic ulceration of penis after venereal infection eight months ago.

Local Lesion. Ulcer over the whole penis. The right groin had three tumours of different sizes, the left groin presented a large fungating ulcer.

Operation considered inadvisable.

Case 11 (316/1920).

W. C. age 40 was admitted for a growth on the penis.

History. Five years earlier an operation for phimosis had been performed. He had left hospital before complete healing. The wound became inflamed and ulceration took place.

Local Lesion. Extensive ulceration on the anterior two-thirds of the penis, glands enlarged on both sides.

Case 12 (400/1920).

W. S. age 53 was admitted for growth on the penis. Phimosis was present.

History. The growth started 16 months ago on the glans penis.

Local Lesions. Extensive ulceration on anterior two-thirds of the penis. Glands enlarged in both groins.

Operation. Type III.

Post Operative Conditions. The wound healed by first intention. There was no suppuration along the incision and the temperature was normal until patient developed bronchitis fifteen days after the operation, which prevented immediate further removal of glands.

Case 13 (18/1921)

I. C. age 53

History. Eight months before admission the patient had a pea-like growth on the glans penis near the meatus. A Chinese plaster was applied and ulceration followed the application and gradually became worse.

Local Lesion. The penis had ulcerated away and there was a foul ulcer. Another ulcer was seen on the anterior aspect of the scrotum. Glands in both groins were enlarged.

Operation. Type III.

Preliminary ligature of vessels at back. There was slight sloughing along the stitches.

Condition on discharge. Wound soundly healed. Further operation on glands refused.

Case 14 (30/1922)

L. I. C. age 58.

History. There was a six months' history of ulceration on the glans penis.

Local Lesions. Fungating ulcer on the anterior one third of the penis, glands in both groins enlarged.

Operation. Type III.

Preliminary ligature with extirpation of saphenous and inguinal glands on both sides at a subsequent operation.

Condition on discharge. Wounds soundly healed.

Case 15 (364/1922)

N. C. age 46.

History. Four years ago had a small swelling on the fraenulum of the prepuce. Swellings of similar character appeared nearby and some were followed by ulceration.

Local Lesions. There was a large cauliflower growth on the anterior part of the penis—the size of an orange.

Patient refused any operation.

Case 16 (470/1923)

K. P. age 42.

History. There had been three months ulceration of the glans penis. A Chinese plaster had been applied.

Local Lesions. A large fungating mass growing from a short root. Glands in the right groin enlarged.

Operation. Partial amputation one inch behind the visible growth.

Condition on Discharge.—The wound was healed.

Late Result. This patient was seen by one of us (M.K.Y.) at Out-Patients one month later. Growth had recurred apparently in the cavernous tissue of the penile stump.

Case 17 (574/1923)

L. C. age 62. Phimosis was present.

History. A year's history of swollen penis due to bacterial infection. Patient was operated upon once for his condition but induration at the opening of the prepuce continued.

Local Lesions. Glans penis enlarged, prepuce infiltrated with nodular growths. Glands not enlarged.

Operation. Type III.

(Preliminary ligature)—there was suppuration of stitches along the vertical limb of the **T** incision.

Condition on discharge. Wound soundly healed.

Case 18 (4/1924)

F. Y. S. age 51. Phimosis was present.

History. 6 months' history of swelling beneath the prepuce.

Local Lesions. The anterior part of penis was felt to be swollen and indurated. A part of the growth had ulcerated through the prepuce.

Glands in both groins harder than usual but not really enlarged to a definite extent.

Operation. Type III.

Gangrene of skin of part of the left side of the scrotum, and of the superficial layer of the urogenital diaphragm, suppuration along the stitches.

Note: The patient is progressing satisfactorily and it is hoped to do a plastic operation after the sloughs have separated.

M. K. Y. & K. H. D.

CONGENITAL SYPHILIS WITH SPECIAL REFERENCE TO ITS POST-MORTEM INCIDENCE IN HONGKONG.

By

YUE MAN KWONG *

Mr. Chairman and Gentlemen,

Congenital Syphilis, as a factor in the aetiology of the antenatal deaths, has been much studied and the following contribution on my part is an attempt to find out the relation between syphilis and infant-mortality in this Colony. It is based upon the microscopical examination of the Liver of 110 dead infants, taken at random from the Victoria Public Mortuary. I must point out that the subjects which go to this Mortuary come from the Roman Catholic Mission Infirmary and the Tung Wah Hospital—both being charitable institutions for the poor Chinese labour class.

Knowing the extent to which the incidence of Syphilis varies in different classes of the community, no endeavour is made in my investigation to draw any conclusions as to the prevalence of Syphilis in the population generally and the incidence of the disease in the various social classes of this island. My aim is rather to estimate roughly the percentage of infant deaths among the labour class which can be attributed to syphilis. In this connection it is interesting to mention that Macfarlane and Aubrey found by Wassermann Reaction that in a series of 500 cases—(mostly of coolie class) admitted to Hongkong Government Civil Hospital, the incidence of syphilis was 27.4 per cent. You will see later the bearing which their finding has on the infant mortality when we discuss the hereditary transmission of syphilis.

General Consideration of the Subjects Examined.

Nationality—Chinese.

Age.—Age, as recorded, is most unreliable. It is put down in the record book as a matter of routine. It is sufficient to mention that 16 cases examined were premature as determined by the absence of the centre of ossification in the lower end of femur. The oldest infant examined was given as 5 years old. 88 subjects were given as under 1 year old and the other 6 subjects were between 1 and 5 years.

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* Awarded Ho Kwong Prize for the best student paper for 1922-23.

Post-Mortem Diagnosis of Cause of Death.	*No. of Cases.*
Broncho-pneumonia	35
Bronchitis	18
Prematurity	16
Lobar pneumonia	8
Tuberculosis (military T.B. tabes mesenterica and Phthisis)	6
Gastro-intestinal disturbance (enteritis and peritonitis)	5
Beri-Beri	5
Malaria	4
Empyema	3
Congenital Syphilis	3
Marasmus	3
Asphyxia	2
Meningitis	1

You will see from the figures that lung affections caused the largest proportion of deaths—broncho pneumonia easily ranking first.

Technique and Result of the Liver Examination.

The staining method employed is that of Levaditi and is as follows:—

A thin slice of liver, about 1 mm. in thickness, is fixed in 10 per cent. formalin solution for 24 hours. It is washed for an hour in water and then immersed in 96 per cent. alcohol for another 24 hours. After that it is placed in 15 per cent. solution of silver nitrate in a dark bottle and kept in an incubator at 37 degrees centigrade for three days. It is again washed in water for 20 minutes and there-after placed in the following mixture in a dark bottle for two days at room temperature.

Pyrogallic acid	4 parts.
Formalin	5 parts.
Distilled water up	to 100.

It is then taken out; washed in water for a few minutes; taken through increasing strengths of alcohol and embedded in paraffin. The block is now ready for section which ought to be as thin as 4 u. This whole process takes just over a week.

This method is undoubtedly tedious but is specially suitable for the demonstration of congenital cases where the spirochaetes generally swarm the different organs of the body notably the liver and the suprarenal capsules. There is, however, the drawback that through faults in staining the spirochaetes may not show and again there is the likelihood that organism may not be present in the liver in any given syphilitic case. With acquired cases Symmers and Darlington had voiced their opinion that it could not always be relied upon.

Result of Finding. Out of 110 cases examined, I was only able to find the spirochaetes in one case and that case was diagnosed, post mortem, as Congenital Syphilis. In the other two cases of Congenital Syphilis, the sections showed distinct increase of fibrous time, although no spirochaetes were seen. The ex-government bacteriologist, Dr. H. H. Scott, was engaged in the same work for some time and expressed the opinion that the percentage of Congenital Syphilitic cases was surprisingly low.

As far as the worth of the Levatidi method and the above percentage is concerned, I am reluctant to say anything. I know far too little to draw or defend any conclusions. I am merely presenting the result which, I am perfectly aware, is within the limitations imposed by biological vagaries and by a human tendency to err. I will now turn to consider this subject of Congenital Syphilis as briefly as possible.

Congenital Syphilis.

Definition. This term is applied to infection with Treponema pallidum acquired by the foetus in utero. A distinction has, however, been drawn between inherited and congenital syphilis. Some writers use the term inherited only to those in which the syphilitic infection dates from the time of conception, while the term "congenital" is applied to those in which the syphilis was transmitted at some later period of intra-uterine life, that is, where the mother becomes infected during pregnancy. Undoubtedly such a difference in date of transmission does exist but the clinical manifestations are the same so it is unnecessary to draw any distinction which is without any difference.

History and Bacteriology.

Syphilis is a disease of great antiquity. There is a clear historical record of the spread of syphilis in a few years after 1495. Congenital syphilis and its relation to the acquired type was pointed out by Paracelsus in 1529.

In 1903, Metchinkoff and Roux transmitted the disease to the lower animals and proved the prophylactic value of calomel inunctions.

In 1905 Schaudinn discovered the causal agent. In 1906 Wassermann Neisser and Brück introduced the indirect method of diagnosis by serum reaction. In 1910 Ehrlick, after repeated experiments, succeeded in giving the world "Salvarsan—606." In 1911, Noguchi cultivated the spirochaetes outside the body and prepared lutein and, again, in 1913 he demonstrated the presence of spirochaetes in the brain of paretics and in the cord of a tabetic. This train of unparalleled scientific achievements throws light on cause, mode of transmission, pathology, treatment and prevention of the disease.

The organism itself measures 4-14u x 25u, has 8-12 curves with two terminal flagella, and shows typical corkscrew movements. In 1909, Schereschewsky showed that it might be cultivated. The cultivation of virulent pure cultures was perfected by Noguchi in 1911. The first strain, which he isolated was from a rabbit's testicle which had been inoculated with spirochaetes from active human lesion but in 1912

he obtained pure cultures directly from human lesions. To obtain the organism in virulent form, he formulated the following essential conditions:—

1. Presence of suitable fresh sterile tissue in serum water.
2. Strict Anaerobiosis.
3. A slightly alkaline reaction as furnished, by the serum and tissue
4. A temperature of 35° to 37°. C.

Noguchi's culture tubes contain the following:—

A high cylindrical layer of a solid medium consisting of 2 parts of 2 per cent. slightly alkaline agar and one part of ascitic or hydrocele fluid, at the bottom of which has been placed a fragment of sterile tissue such as rabbit's kidney or testicle.

These tubes after inoculation are incubated at 57° c. for two to three weeks. It is generally impure at first but by sub-culture, a pure culture may be obtained. The appearance of colonies is never sharply marked and is only faintly visible. It has a general haze appearance and the colonies seldom become discrete. The morphological characters of the organism are influenced by violent handling of the culture tubes, the presence of a trace of oxygen, the curves become irregular and straight forms are seen. The method of multiplication is a matter of doubt. Schaudinn and Noguchi noticed longitudinal division while others have described transverse multiplication. The spirochaetes are pathogenic to monkeys of lower species—(Macabus Phesus) and Rabbits—both have been inoculated with pure cultures or with human syphilitic material with the production of typical skin lesions.

Hereditary Transmission.

The two factors concerned in the transmission are the father and the mother.

1. The father is syphilitic and the mother apparently healthy.
2. Both the father and mother show symptoms of syphilis.
3. The mother is syphilitic and the father apparently healthy.
4. The mother acquires syphilis during pregnancy.

Much controversy has arisen over the modes of transmission which can be briefly summarised as follows:—

(a) The father is syphilitic and so infects his wife soon after the marriage. His wife infects the embryo. The Treponemata circulating in the blood stream of the mother apparently penetrating the placenta with ease and enter the blood stream. The child has no primary chancre and we have here an indication of the possibility of syphilis d'emblíe.

It is now generally held that paternal transmission directly to foetus is impossible. Finger has, however, discovered that the semen of a syphilitic man may, when inoculated into a monkey

produce a primary sore, although the spirochaeta which may occur in the testicle, has never yet been found in the semen. Those, who uphold the theory of direct paternal transmission, argue that the diseased foetus is certain to infect its mother during gestation, gaining their support on the occurrence of tertiary symptoms in some women who have had no previous signs except the begetting of a syphilitic child and, further on what is known as Colles' Law. This law was laid down by Colles in 1837. It states that the suckling of syphilitic infant by its mother does not lead to her infection, while if another healthy woman suckles the same child, she may develop a chancre on the breast.

(b) The wife alone has syphilis and infects the child in the same manner as in *(a)*.

In this connection, there is another law known as Profeta's Law which states that a child showing no taint but born of woman suffering from syphilis will not become infected even though suckled by its mother.

Exceptions to both Colles' and Profeta's Laws have been recorded. The explanation is quite simple—the mother immune in Colles's law and baby in Profeta's. It is now proved that both the mother and the baby under those circumstances are infected with spirochaetes but do not manifest clinical symptoms of syphilis. Occasionally a syphilitic father may beget an apparently healthy child, even when the disease is active.

The question whether transmission to third generation is possible forms another bone of contention as far back as the 17th century.

Van Helmont opined that syphilis might be transmitted to the third generation. The various writers since then who supported his view were Sanchez, Bartelemy, Fournier. Schultz, and Sir J. Hutchinson disagreed with this and Stiles thinks the question undecided. Dr. C. F. T. East in a recent communication to the Lancet recorded a case which strongly supports the former view, *i.e.*, possibility of transmission to the third generation. The following is a brief extract of it:—

> "A woman, age 23 had very typical interstitial keratitis and gave a history of similar trouble when she was 8 years old. The upper incisors was not quite "Hutchinson" in appearance and her Wassermann Reaction was strongly positive. Her two sisters, 28 and 17 years old were exempt from any congenital lesions and in both Wassermann Reaction was negative. Her father was also free from syphilis. Her mother had signs of old interstitial keratitis, an external strabismus and her teeth were typically Hutchinsonian. Her eye trouble started when she was six years old, and had a relapse when the patient, *i.e.*, the second daughter, was about to be born. Her blood gave a strong positive Wassermann. The patient's maternal grandfather had been on foreign service and died at 71. It is therefore likely that the transmission dated back to the grandfather."

Effects of the presence of Syphilis in Mother on the Foetus.

The curse of congenital syphilis lies chiefly in the wastage of child life and in the small proportion that survived, it is a still greater tragedy. Dr. Routh estimated that 27,000 deaths in England and Wales alone occurred annually in the antenatal period and the week following birth as a result of syphilis and Dr. Russell Andrews in his evidence before the Royal Commission on Venereal Diseases, stated that nearly 50% of all syphilitic foetuses were still born and 75% of these born alive die within the first year, most of the deaths occuring during the first week of life. Rosenau estimated that syphilis caused death in 80% of those congenitally infected; Cruickshank found as recent as 1922 that in Glasgow 32.54% of viable infants, born to syphilitic mothers were born prematurely; and that 68.75 % of those prematurely born were still-born. Concerning the effects of congenital syphilis, we have the following possibilities.

1. The infection causes a cessation of development and abortion is the result.
2. The foetus develops but is born before the normal intra-uterine life (premature birth).
3. The foetus goes to full term but is born dead (still birth).
4. The child is born at full time living, with distinct signs of syphilis and dies shortly.
5. At birth, the child may show no symptoms at all but later after a few weeks typical signs of syphilis develop.
6. The child may present no symptoms or signs at birth, but after weeks, months or possibly years, the disease being latent, the disease manifests itself after as late as 28th year in the tertiary form (syphilis hereditaria tarda).
7. The child may be puny, weak, liable to all sorts of infection, underweight, in short, a physical wreck. This may occur without any manifestations of the disease.

The history of a syphilitic mother regarding the successive pregnancies is another interesting feature.

It is commonly as follows:—(Taken from Stiles).

1. Miscarriage at 4½ months.
2. Miscarriage at 5½ months.
3. Eight months childs; live two hours.
4. Boy with marked symptoms of congenital syphilis who survived
5. Apparently healthy; aged five months.

Does the stage of the disease in the parents influence in any way the character of the disease in the offspring? At first it would appear that the later the stage of the disease in the parents, the less the severity of the disease in the child. There are however, exceptions. The intensity of the disease may be greater in a later than an earlier

child. Sometimes the disease may even be absent in one child and reappear in a later child. The following history taken from Stiles illustrates these points:—

1. Twin, premature, both still born.
2. Survived, showed interstitial Keratitis.
3. 4. 5. All miscarriages.
6. Apparently entirely free from syphilis.
7. 8. Still born.
9. 10. 11. 12. 13. No record.
14. A girl, at six years eight months shows Hæmoglobinuria, a constant sign of congenital syphilis.

Symptoms.

Under this heading, I shall deal only with the few common signs of congenital syphilis and with the rarer manifestations, I shall touch but very briefly.

According to Stiles, 80 per cent. of congenital cases manifest itself within the first two months of life. The child is generally at birth in all respects normal and appears to be quite well nourished. If the child is born with signs of congenital syphilis, death generally ensues after a very brief period. Some observers went so far as to say that syphilitic symptoms were never present at birth. The following signs may be recognised immediately after the birth of the child.

1. Syphilitic pemphigus.
2. Jaundice, the result of intercellular cirrhosis of liver.
3. Snuffling.
4. Choroido-Retinitis.
5. Enlargement of liver and spleen.
6. Syphilitic "wig."
7. Rarely spontaneous hæmorrhage from stomach and bowels.

As already stated, the disease begins to show itself after two or three weeks of apparent health.

1. Marasmus or Wasting.

This is a most constant sign and occurs in two forms. The first and commoner is a moderate degree of wasting associated with well marked manifestations of syphilis and cease when the accompanying symptoms subside. The second is a progressive marasmus which begins often before any suggestive signs of congenital syphilis have been detected and which continues even after the associated symptoms have disappeared under efficient treatment. The wasting produces the characteristic wizened appearance of an old man. The general skin surface becomes dry and papery and acquires a "cafe au lait" tint.

2. Snuffles.

Snuffles is another common sign and generally begins within the first six weeks. The condition varies from a light stuffiness in the nose up to a profuse discharge of yellow irritating pus. It may give rise to the characteristic depressed nasal bridge. It must be pointed out that snuffling has to be carefully differentiated from ordinary "cold in the nose" and catarrh due to the large adenoids.

3. Skin Eruptions.

These generally appear soon after the snuffles and are very rare after the sixth month.

The following are the most characteristic:—

1. Macular, small reddish brown areas, usually circular but running together into irregular areas—dry and sometimes finely desquamating on the surface. This rash is particularly liable to occur in the middle third of face, *e.g.*, round the mouth and the nose. They give rise, after healing, to the radiating scars round the mouth.
2. An erythematous eruption, chiefly occuring in knates and inner surfaces of the thighs; this eruption must be distinguished from the ordinary intertrigo, due to irritation by the faeces or urine. The points to be remembered are that syphilitic rashes are generally of a coppery tint and that the intertrigo rash appears only on opposed surfaces.
3. Desquamative. There may be a profuse desquamation of the palms and soles.
4. Fissures radiating from mucous surfaces, *e.g.*, anus, mouth, are sometimes seen. They may give rise to characteristic scars.
5. Bullous, the "Syphilitic pemphigus" may be present at birth.
6. Condylomatous. These moist patches are very rare below the age of one.

I have referred to the abundant crop of hair which may be noticed at birth, but after a few months the opposite happens. A condition of baldness is produced. Again the nails of the fingers, and sometimes of the toes, are dry and shrivelled up and soon are shed.

4. Bone Lesions.

Syphilitic epiphysitis is an inflammation of the ends of the long bones, there being present tenderness and swelling. Owing to the tenderness, one or two limbs may remain functionless and flaccid, spoken of as syphilitic pseudo-paralysis.

Dactylitis. In this condition, there is a fusiform swelling of the phalanges of the fingers. *Parrot's nodes* and *cranio-tabes* may be present, but according to some, these manifestations are rare.

5. Mucous Membrane Affections.

These lesions, in the form of ulceration, are generally seen in the buccal cavity and larynx, leading to hoarseness of voice. Their presence is indicated in later life by the snail-like scars seen in the fauces.

6. Visceral Lesions.

The spleen is usually enlarged and the testicles may be painlessly swollen and hardened. The latter sign is almost pathognomonic of congenital syphilis.

Later Manifestations.

The eyes are attacked in the form of iritis or interstitial keratitis, giving rise in later life to unequal pupil and pigmentation. The teeth, especially the upper incisors, are characteristically notched, so called the "Hutchinson's teeth." The incisors are peg-shaped and the notches at the cutting edge are crescent shaped—a large segment of a small circle. The teeth are widely separated.

Periostitis with thickening and nodes on bones may also be detected and *joints* may be affected by synovitis.

The nervous system may be implicated, giving rise to meningitis and juvenile general paralysis. Nephritis may also occur.

Anaemia may be marked and the lymphatic glands enlarged.

Deafness generally begins after puberty.

I have personally noted three cases of congenital syphilis in the Civil Hospital and I think it will not be out of place here just to give a brief account of each.

CASE 1.

A boy. Male, age 3.—admitted for progressive ill-health.

Condition on admission.

He was rather anæmic, wasting being marked. The abdomen was distended and on percussion, etc., free fluid was detected. The cranial fissures still remain open. There was a distinct bossing of frontal and parietal bones. The crossed bun appearance or Parrot's nodes well seen.

Diagnosis.

T. B. peritonitis was considered a possibility but no nodules were felt. The diagnosis of congenital syphilis was made likely by a positive Wassermann Reaction as well as a + reaction in the mother's blood.

The patient was discharged after 15 days' treatment but was readmitted about a month later.

The wasting now became extreme, giving the child an old man's appearance: the skin shrivelled and the hair scanty. The enlargement of lower end of femur was found.

It is interesting to note that his sister, 11 years of age, also showed signs of Congenital Syphilis. She had ulceration round her month and her Wassermann was positive.

CASE 2.

Patient, a female, age 30.

Distension of abdomen and amenorrhoea.

History. Married 10 years ago. Gave birth to a child one year after marriage. The child was born alive but died one month later. No more conceptions since then. Had four sisters, all healthy. Could we not say that the death of child was due to syphilis, *i.e.*, syphilis to third generation?

History of Present Disease.

Amenorrhoea began three months ago.

Signs in Support of Congenital Syphilis.

1. Irregularity of Pupils.
2. The presence of an opaque patch on left cornea with adhesions to iris.
3. Depressed bridge of nose.
4. Hutchinson's teeth with first molar decayed.
5. A strongly positive Wassermann.

CASE 3.

Patient, female, age 42.

Came to the Outpatients for irregular menstruation.

History. Married when 18 years old. Regular menstruation since then until the 3rd moon of last year when menstruation stopped. This lasted till the 8th moon when it again came on regularly for three months. From the 10th moon until now, *i.e.*, 2nd moon of present year the menstruation again ceased. She had no abortions.

Signs in Support of Congenital Syphilis.

1. Depressed bridge of nose.
2. Typical Hutchinson's teeth.

She was examined for pregnancy but no evidence detected.

Eyes were quite normal.

Diagnosis.

I shall not discuss diagnosis as the symptoms which I have just enumerated will make the case clear.

Treatment.

Congenital syphilis is a disease that can be efficiently brought under control. Early anti-syphilitic treatment of pregnant women will save many lives unnecessarily lost. The syphilitic mother after

treatment can beget healthy children. The curative treatment of a congenitally infected child, is however, very disappointing. The subject may be dealt with under three headings:—

1. Syphilitic treatment of father.
2. Prophylactic treatment of mother whether pregnant or not.
3. The treatment of the child itself.

I shall not discuss the treatment of syphilitic father as it is not within the scope of this paper.

Prophylactic Treatment of Mother.

Here is a question to be considered. Should the treatment be carried out as soon as the diagnosis is made or should it be delayed till the woman is pregnant? According to Findlay, it is better to select the period of pregnancy for intensive treatment as the increase of vascularity of the tissues—the endometrium—will facilitate better dissemination of the spirochaeticide. Personally I think the woman suffering from acquired syphilis must be treated for it and it seems unnecessary to wait till she is pregnant.

The ante-natal treatment with Salvarsan was first practiced by Sanvage and Jeavselme some 12 years ago and unfortunately it had not been widely adopted as it should have been done. The result has been most encouraging. Galliot collected the statistics relating to 144 pregnant syphilitic women treated with salvarsan and in only eleven or 8 per cent. did the pregnancy not proceed to the birth of a living child. Adams treated 95 cases and in all, a living child was born.

As soon as the diagnosis of syphilis in a pregnant woman is made, the treatment with one of the salvarsan substitutes should be commenced. It must be borne in mind, however, that a pregnant woman is more susceptible to any form of toxin. Her excretory organs *e.g.*, liver and kidney are always under strain so the dosage of these arsenical preparations should not be the maximum and has to be judged by the condition of the patient. Neosalvarsan and mercury are the two best spirochaeticides.

Intravenously injection of Neosalvarsan is to be given weekly or a series of courses—six for each course, always begin with a small dose—.3 gram. and gradually increase until the maximum has been reached—.7 gram. The pregnant woman generally takes the injections well. The above must be combined with the intramuscular injections of mercury in the form of grey oil, 40 per cent. B. P. emulsion. The mercurial injection can be given in 1 grain dose on the same day as the Neosalvarsan is administered.

For the administration of mercury, the following methods may be employed but none is wholly satisfactory.

1. *Intramuscularly.* These injections cause pain; the preparations itself vary frequently and some metallic mercury may be deposited at the bottom of the bottle showing that the doses are not uniform. The Benzoate preparations are less painful but has to be repeated daily to get the maximum effect and naturally the patient objects.

2. *Inunction.* The chief drawback is the time given to rubbing and the variations in the absorbing power of the different skins.

3. *Suppositories.* Advocated by Mr. Shillitoe. The chief objection lies in the uneven absorption of the drug depending on the local conditions of the rectum and in the annoyance to the patients.

4. *Oral Administration.* Advocated by Sir John Hutchinson. This method is on the whole most convenient. A pill of from 1—2 gr. grey powder along with 1—3 gr. Dover's powder is taken 3 to 6 times daily for 1 to 2 years without intermission. It is unnecessary to mention that tertiary lesions are best treated by iodides.

3. The Treatment of the Child.

Arsenical preparations are again used.

Intravenous injections in the newly born are extremely difficult.

Adams strongly recommended intramuscular injections of a preparation of galyl in glucose and i tramuscular injections of mercury.

The dosage of galyl is 2 cg. and this is increased cautiously up to 5 cg. or more as the child grows. A rough calculation can be made as follows: A newly born baby about 1/17th the weight of the mother, the adult dosage is about 30 cg., 1/17th of 30 cg. is roughly 2 cg.

The mercury is given in doses from $\frac{1}{4}$ to $\frac{1}{3}$ grain or more.

The safest site for intramuscular injection in the newly born is the gluteal region and if a line be taken from the anterior superior spine to the commencement of the gluteal fold and this line divided into three sections, anywhere in the middle third is the place to inject. The injections of galyl and mercury can be given the same day on opposite sides. It is generally desirable that there should be an interval of 7 to 10 days between injections.

The amount of galyl required to convert a positive Wassermann Reaction in a baby at birth into a negative one, is according to Adams, 6.5 cg. and the total amount per case can be as much as 26 cg.

The curative treatment of congenital syphilitic child is, however, never satisfactory. The greatest disappointment lies in the after history of many cases in whom a cure is thought to have been effected. The child may come back with condyloma or keratitis and the Wassermana Reaction may again become positive.

Syphilis and Marriage.

If you and I have the good fortune later to be family physicians we will have to face this problem now and again.

Osler states that the family physician must insist upon the lapse of two years between the date of infection and the contracting of marriage. This however, is the earliest possible limit, and marriage can only be allowed if the treatment has been thorough and at least a year has passed without any manifestation of the disease.

The following rules are formulated by Vedder: —

1. A mild course of the disease.
2. An efficient course of treatment with both salvarsan and mercury in accordance with the best practice in the treatment of syphilis.
3. An interval of four full years between infection and marriage.
4. An interval of three years from the last syphilitic manifestation to marriage with careful observation to determine the existence of symptoms.
5. A negative Wassermann just before marriage best confirmed by a test at a second laboratory to insure accuracy.

After an intensive course of treatment if the Wassermann Reaction is still positive, marriage may be permitted but a continuance of mercurial treatment for both partners would be advisable in order to reduce the dangers of transmission to a minimum.

In conclusion I wish to thank our popular president, Professor C. Y. Wang for giving me every facility in my work, the officers in charge of the Mortuary and also Mr. Mark of the Pathology School who has given me every possible help.

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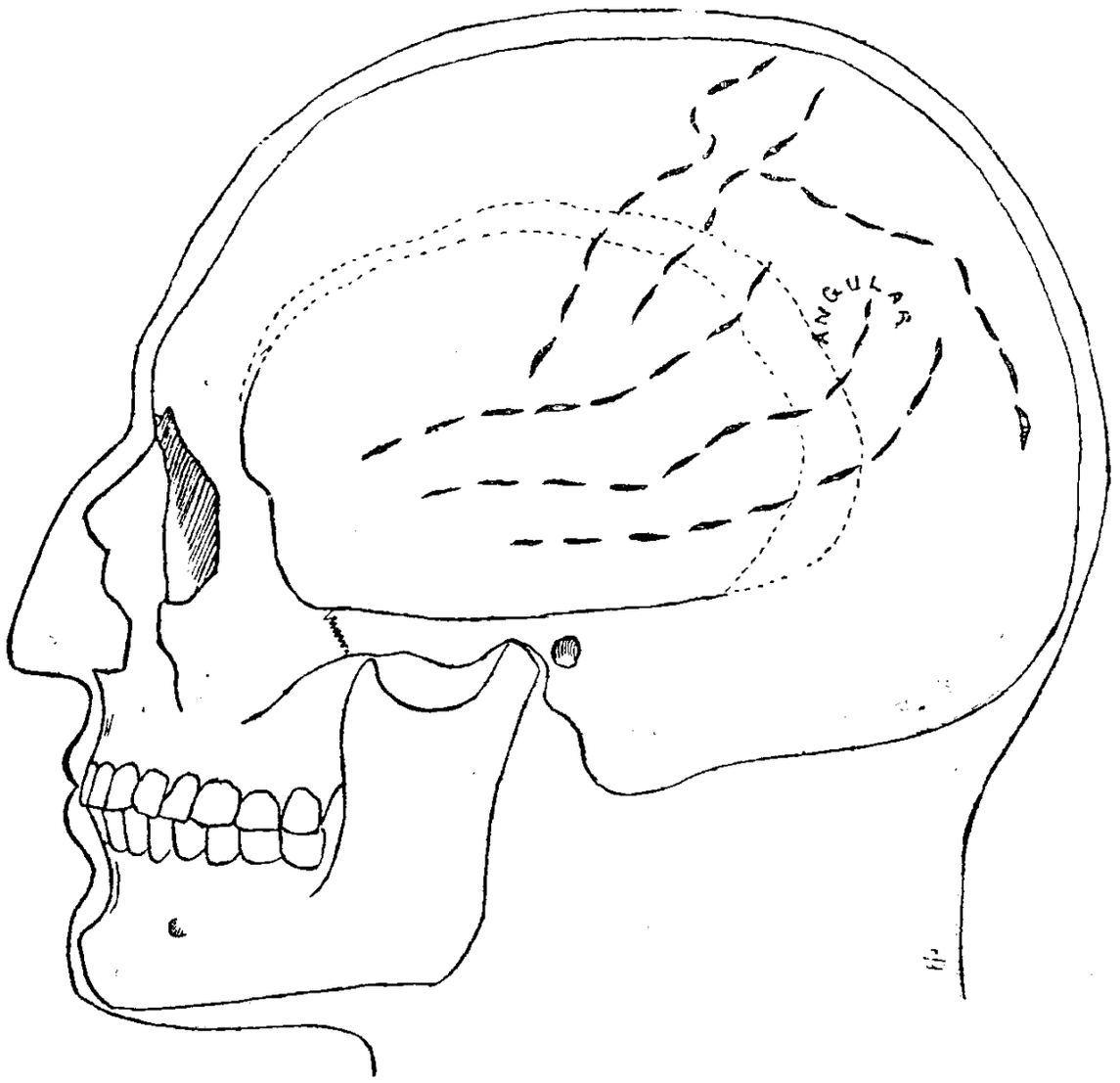
CASES FOR COMMENTARY

TWO INTERESTING HEAD CASES

No. 1. A young female right handed baby, fourteen months of age, fell from a perambulator on to its head. She did not vomit nor seem much upset at first. Half an hour after the fall, the left upper and lower limbs began to twitch. One hour after the accident the child was admitted to hospital in a semi-conscious state with conjugate deviation of head and eyes to the left and some rigidity and hyper-



The dotted lines represent the attachments of the temporal muscle and temporal fascia

extension of the neck. The left side of the face and the left upper and left lower limbs showed severe spasmodic contractions. The pupils were equal and reacted. There was no external mark of injury. Six hours after the accident the baby was restless (the right arm and leg frequently moving) and she showed more consciousness. Conjugate deviation of head and eyes was now to the right. The left-sided spasms had now given place to paresis. The left upper limb was most paralysed. The left side of the face and the left lower limb showed an occasional twitch but were definitely paresed. An extensor plantar reflex and a very brisk knee jerk were seen on the left side.

The pupils were still equal and reacting; pulse good, 150 per minute; breathing quiet and normal.

Discuss the case, giving diagnosis, treatment and prognosis. (Solution end of book).

No. 2. This case was a right handed man of 44 with a previous luetic history. For six months it had been noticed that he had seemed liable to forget things. One day, six weeks before, he had felt giddy. Next morning he wrote a letter which seemed to be nonsense. Pain was complained of over forehead and eyes. At first the pain was chiefly in the left eye. At this time the blood-Wasserman was reported negative, the discs were reported normal and a diagnosis was made of "neurasthenia." At times he was able to read aloud a word or a sentence in a letter without being able to "register" the meaning. Three days before admission to hospital, exaggerated knee jerks and extensor plantar reflexes were noticed. For four days there had been constipation; previously the bowels had always moved daily.

Preliminary examination on admission showed the following:—

General Constitution:—A well-built man with heart, lungs, abdomen and urine apparently healthy. Temperature normal. Pulse 60, Blood pressure, systolic 150 mm. diastolic 120 mm.

Cerebration:—The patient was deeply lethargic with a vacant look. He exhibited slow and defective mentality, but when spoken to would rouse slightly with an effort.

Cranial Nerves:—There was slight left ptosis.

The pupils were equal.

There was some very slight doubtful nystagmus on looking to the left. The tongue could be protruded in the middle line and was generally tremulous.

The patient was apparently not deaf on either side but the lethargic condition rendered satisfactory testing of hearing, smell and vision impossible.

The left optic disc was pink, striated, with a very indefinite edge and the vessels extremely engorged.

The right optic disc showed the same appearances but definitely in a slighter degree.

Trunk:—Sensation over the right side of the chest was less than on the left. Superficial reflexes were absent.

Limbs:—All movements were feeble but those on the right much the more feeble. The right lower limb showed an exaggerated knee jerk and a feeble extensor plantar reflex.

Patient could not walk by himself. He tended to fall to the right, being apparently unable to sustain his weight on the right lower limb.

Given a reasoned diagnosis, outline the treatment and give the prognosis. (For solution see end of book).

PRESIDENTIAL ADDRESS ON CLINICAL RESEARCH.

By

K. H. DIGBY, M B., B.S., F.R.C.S. *(Eng.)*

Gentlemen,

I have to thank you for the honour of electing me President of this Society. With the help of my old friend, Dr. Thomas and others I had the privilege of founding it and it has always held a warm spot in my heart. I felt very easy in accepting the presidency two weeks ago because I knew that the Chairman of Committee and the Secretary did all the work. I had forgotten the possible obligation to give a presidential address.

It is customary for such an address to be of a general nature rather than to deal with some particular limited problem in medicine or surgery, and I have decided to make a few rambling remarks about Clinical Research. I have chosen this subject partly because the endowments of the Rockefeller Foundation have, for the first time, rendered it possible for this School of Medicine to begin to indulge in such work. At the end of every year each clinical unit must be able to look back upon a record of work attempted to enlarge the bounds of human knowledge; if it cannot do this it has partly failed. Research is an essential and integral part of the University work and for the first time since the foundation of the University it will be possible to raise the clinical side of the medical faculty to University standard in this respect. There is another reason why I have chosen to stress research work. Research is an especial obligation upon China and the Chinese. This great people are free to share in the enormous benefits of scientific progress and research which has taken place during the last two hundred years. Yet to all this scientific progress they have contributed practically nothing. It is incumbent upon this University to provide facilities and encouragement and to foster the spirit of research in our students, so that in the future no one will be able to say that the contributions of China to scientific progress are negligible.

The word "research" will here be used in the sense of "original scientific investigation." There are two kinds of research, the first is observational, the second we may call ideational or imaginative. Of necessity these two often go hand in hand. Perhaps it would be better to say that successful research involves two processes—observation of facts and the origination of new ideas. Some researches are devoid of the second process. Thus the savant who counted the number of hairs on the scalp at all ages and in different races was engaged in a piece of observational research, into which little or no originality entered. The richer a piece of research is in original ideas, *provided they are sound*, the more highly should we appraise its quality. For observational research (even if devoid of ideational element) though perhaps not requiring such high intellectual faculties may yet be of very great usefulness to mankind. One certainly does not wish to disparage observational research in any way. It is the basis for and the touchstone of all imaginative work. Much study of the Anatomy, Physiology and Pathology of the European and American races requires to be repeated on the Chinese race. These attempts to secure physiological and other "standards" for the Chinese race will not only be of value in themselves but may lead to original ideas and methods. It cannot be too strongly emphasised that all ideational research must be founded upon and tested by observation. In the observation of facts one requires accuracy and patience. The educational value of *anatomy* lies in the training it gives in the accuracy of observation and description. The pity is that the student's time is so overcrowded that he cannot be required to make all his own observations and descriptions for himself. If only each text book had a number of intentional mistakes and the student was not allowed to sit for his examination till he had found them all out for himself by his dissections, then he would be compelled to learn to test for himself the observations of others. For scientific progress is continually being held up, in certain directions, by the failure to test previous observations with sufficient stringency.

Quite apart from research, how often does a medical man go wrong by accepting as correct a diagnosis made by a previous doctor. Indeed in hospital one can only safeguard oneself from the subconscious bias in favour of an earlier diagnosis by starting off with the assumption that whatever the correct diagnosis may be it is probably not that for which the case was sent into hospital. King Charles II is said to have asked a number of philosophers why it was when you dropped a gold fish into a glass bowl brimful of water it did not overflow. Much ingenuity was expended, pamphlets were written—the fish drank the water, there was no disturbance in returning a creature to its own element, and so on. No one tried the simple experiment of dropping in the gold fish and mopping up the mess. You can repeat the royal jest any day. I show my class a lame patient and ask why is his right lower limb shorter than his left. I get some beautiful answers. No student measures, yet if he does he will find them equal. People will see what they are told to see even if it does not exist. For observational research then, to patience and accuracy we must add *a sceptical frame of mind*.

Most people can cultivate by training some ability in observational research. It merely requires talent. Ideational research on the other hand demands a far higher quality approaching to and sometimes reaching genius. Contrast Darwin's theory of evolution with the counting of hairs on the scalp! The ability to form fresh mental concepts is inborn and might seem to be extremely rare. And yet, given suitable encouragement, it is surprising to find how common at least some degree of this ability is. It is the business of a University to cultivate the habit of originality.

To produce good ideational research it is necessary to have two faculties—imagination and critical sense. *Both* faculties must be present together in addition to powers of observation. Imagination without the critical sense leads to insanity; critical sense without imagination is purely destructive; observation without either imagination or critical faculty produces stupidity. It would not be difficult to illustrate the above from recent literature.

Before a surgeon can enter to study and work at one of the finest surgical services in the world, a confidential paper is sent to those who have known the applicant asking for information as to certain qualities:—manner with patients, industry, persistence, promptness, loyalty, knowledge of and faithfulness in asepsis, ability to meet emergencies and many others. Curiously enough, imagination and critical sense are left out.

Yet these are essential for the higher type of research. At one time the surgeon was expected to be a practical man untroubled by theories, and a young surgeon who indulged in research in connection with his subject was apt to be regarded as a queer uncomfortable fellow, a little touched, perhaps all right shut up in a physiological department, but unsuitable for promotion to the golden heights of the Profession of Chirurgery. But these days are surely past.

A critical sense should be one of the aims of all education—at least of all higher education. A course on what constitutes evidence should be an integral part of every University curriculum. When one surveys the gullibility and superstition in the world, one is depressed into feeling that there is absolutely no limit to human credulity and human stupidity. Nor is the medical profession free of the need of developing the critical faculty. How many of our forms of treatment most confidently recommended are based on evidence that would not satisfy for a moment the elementary standards of pure scientists? I will again be cautious and not take instances from the present, but only refer to the indiscriminate blood-letting practised by the profession not so many generations ago. How convinced were the doctors of its efficiency, how unsound their evidence!

For purposes of research, imagination must be restrained by criticism or it will prove a fantastic and dangerous guide. Mrs. Eddy's theory of Christian Science is a good example of imagination unchecked by criticism. When the workings of the brain no longer correspond with objective phenomena in the world outside the threshold

of insanity has been passed. The researcher must force himself to be critical. If it is difficult to be critical of the views of another it is still more difficult to criticise one's own hypothesis. It is calling upon a mother to slay her infant. Yet this ruthlessness is essential to sound research and its absence mars many statistical papers published by surgeons. So many surgical statistics published nowadays are influenced more or less subconsciously by the surgeons's own bias, that one would like to see a special independent research bureau founded to audit such work, and no statistics to be published unless so audited.

So much for the qualities required in a successful researcher. What of the organisation to select and provide opportunity for researchers? Ideational research cannot be machine-made to order. It can, however, be encouraged.

One of the chief recent steps forward in encouraging clinical research is due to the stimulus given by the Rockefeller Foundation to the foundation of whole time chairs in Clinical subjects. The principle of whole-time chairs in preclinical subjects such as Anatomy and Physiology has been secured not so long ago. The extension of this principle to clinical chairs is meeting with very considerable opposition (partly from vested interests) ; but it is bound to triumph in the long run.

Under the old system the young surgeon or physician had to waste his time to minor routine work to earn his living when he should have been doing research: and afterwards in middle age the demands of his growing consulting practice again prevented research and curtailed his time for teaching from his ripe experience. Of course under the old system there have been brilliant researchers. One has only to think of Lord Lister, who made possible the greater part of modern surgery. And the teaching hospitals in Great Britain can boast of many particularly brilliant clinical teachers. Yet not a few great and successful surgeons under the old system were never guilty of one single original thought throughout their lives!

The whole time unit system further-more provides a nucleus about which researchers of all kinds will collect and a home in which research can be carried on. Old methods and new methods will be subjected to a close scrutiny free from the subconscious bias towards the operation or line of treatment for which a heavy fee is demanded. They will also form great post-graduate training centres. Under the old system a surgeon was at times unwilling to give away all his tricks of technique. This was never the case at Guy's Hospital, but at another of the large teaching hospitals in London, I heard recently of a famous surgeon whose great specialty was the stomach, bitterly complaining because a doctor in a provincial town came to London and watched his technique for the operation of gastrectomy and after attending daily for three weeks, said "thank you Mr.————, I now feel I can confidently perform that operation myself." The great surgeon was indignant at this picking of his brains and the consequent loss of fees upon which he had to depend for his living. Yet the great surgeon at a teaching hospital should exist for the very purpose of the teaching of others.

How far should research be combined with teaching? The researcher benefits by having to teach and by contact with the fresh young minds of his students. The teacher benefits by research which keeps alive his interest in his subject and prevents him becoming mechanical and dreary. Whatever it may be in other subjects, in clinical research, contact with patients and students is of paramount importance.

A line of research may often lead one outside one's own speciality, This does not matter. For purposes of teaching knowledge may conveniently be shoved into water tight compartments, but in extending the bounds of knowledge such compartments are dangerous and cramping. Indeed much of the research work of the future must be team-work carried on jointly by the specialists in different departments. Insullin has been the product of such collaboration.

The importance of research should not overshadow the importance of teaching. A really great teacher is to be measured not only by his own research but even more by the research and other work of his students and followers.

Should undergraduates indulge in research? The medical course is so overcrowded and the essentials of medical knowledge so numerous that the undergraduate has little time for research work. Nor perhaps has he the required breadth of knowledge of his subject. Yet he can cultivate the habit of thinking for himself and of testing statements, and he can keep his eyes open for ideas upon which he can work consequently

With a young library as we have here, lacking much of past periodical literature it is difficult to be *au fait* with all that has been done in any particular line. It is not, however, always best to steep oneself in the old literature before tackling a problem. Too much study of previous work may form grooves from which the mind cannot escape. A study of the literature may follow or at least accompany rather than precede, experimental work. More money is now being spent on the library and it is to be hoped it will not always remain inadequate.

The best training for a student who contemplates research is to hold house appointments for one year. He will be too occupied during this period to indulge in much systematic research on his own, but his fresh young brain may contribute valuable assistance. As an instance I may mention the elastic anklet for traction in cases of fractured femur suggested by may late House Surgeon, Dr. Lim Eng Hae. After house appointments the would be researcher should become attached on one of the chief departments, Medicine, Surgery, etc., and work partly at his own ideas, partly in collaboration with his Professor. To assist an older man in a research is a useful training, and the assistance and encouragement received in return should be invaluable. This University badly requires the endowment of post graduate research scholarships so that the young researcher can be free from financial anxieties.

Those who go into general practice cannot devote their whole time to research, yet valuable work can be done in general practice, as has been shown by Sir James Mackenzie and many others, and the spirit of research carried into general practice lightens what might otherwise be tedious and monotonous.

It is the romantic spirit of adventure in research that should appeal to all young men. Most parts of the surface of the earth are now explored. It is only by delving into natural phenomena that we can find uncharted lands.

If only this Medical Society returns to its earlier traditions of papers by undergraduates in preference to lectures by members of the staff or by distinguished visitors, it will serve a valuable purpose in fostering the spirit of research.

EDITORIAL.

GREETINGS.

1923 has gone by and with it perhaps has slipped away our memory of the past three issues of the "Caduceus." Assuming that greetings are never too late, we wish our readers a prosperous and happy year. In particular we wish to thank the various business firms which have placed their faith in us by advertising through our columns. We sincerely trust that we have justified their confidence in the journal. Inspired by the lessons of the past and a youth's vision of the future, "Caduceus," young as it may be, will carve its way successfully through the scientific world.

JOINT CONFERENCE OF THE CHINA MEDICAL MISSIONARY ASSOCIATION AND HONGKONG AND CHINA BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The preliminary arrangements for this important conference have now been completed and it has been decided to hold it during the China New Year Vacation, 1925, from January 21st—28th.

The C.M.M.A. will meet during the first three days devoting their time to business sessions and papers on the missionary aspect of their work. The second three days will be occupied by scientific sections, organised jointly by the C.M.M.A. and B.M.A.

Two sessions, morning and afternoon, will be held daily and certain popular lectures will be given in the evening.

The following sections have been proposed:—

General Medicine, Pathology, Pharmacology & Therapeutics, Surgery, Ophthalmology, Ear, Nose and Throat, Radiology, Public Health, Parasitology, Naval and Military Medicine, Anthropology including Anatomy and Physiology.

A joint programme committee consisting of Drs. Kirk, Thomson, Todd and Maxwell from the C.M.M.A., and Professors Anderson, Earle and Shellshear from the B.M.A. has been formed to deal with the preliminary arrangements. Each section will be placed under a joint chairmanship and we hope to publish further details in the next issue.

In planning the sectional programme, an attempt will be made, where kindred subjects are under consideration by different sections, to arrange for joint sessions, so as to avoid a clashing of papers and also to cater for those who have general rather than special interests. It is also proposed to make the meeting as practical as possible and to give up the laboratories to demonstrations of this character, some of which will be on view during the whole conference. Although there is a year to go, before the conference meets, it is desirable that all who wish to present papers etc., should immediately consider how they can help to make the meeting a success.

This will be the first time that the conference meets in Hongkong and although the Far Eastern Association of Tropical Medicine met here in 1912, this is the first time that the local branch of the B.M.A. has directly organised a meeting of this kind.

There is no doubt that such conferences are very stimulating and the 1925 Conference should do much to remove the stigma of insularity from Hongkong and should also help to bring us into touch more closely with the wider problem of Western Medicine in China.

RETROSPECT AND PROSPECT.

When the first publication of the "Caduceus" appeared, it was feared that the Medical Society might have undertaken a task which it might not be able to justify. Looking back now at the Journal's brief life of two years, we cannot help breathing a sigh of relief. How far we can claim to be a scientific journal and to what extent we have helped to propagate medical knowledge it is not for us to say. One is never a competent judge of one's own reputation. We have been trying to live up to those lofty ideals set forth in the first issue and that is all.

We have now reached a period when the future of the "Caduceus" seems to be a perplexing problem. The two senior medical journals in China have said many kind and encouraging words about "Caduceus." When others are praising us, it is time to look round and know ourselves, lest a too "brilliant" beginning may lead us to a tragic end. It is with this spirit in mind that these lines are written.

First of all let us think whether it is possible for a society composed largely of student members to produce a first class scientific journal. In the case of "Caduceus," we may say that the undertaking is possible because we have the services of the University staff and a large number of local practitioners. Let us look from another angle and consider whether a journal like the "Caduceus," which aims at a

high scientific standard ought not to be produced by a purely scientific body, *e.g.*, the University Medical Faculty or the Hongkong Branch of the British Medical Association, so that its contents may carry more weight in the scientific world. One always expects to find a comical element in a student journal. A sarcastic remark or two about one's beloved lecturers, caricatures of one's unfortunate fellow students, the numerous satires of an irresponsive writer, these are what make a student magazine worth reading. But this spirit of undergraduate joviality is quite incompatible with scientific earnestness. Faithful to our objects, we have all along kept aloof from that spirit—glimpses of which may sometimes be found under "News and Comments." This now brings us to another question. Is is fair to enlist the support of the junior students for a journal which is largely Clinical and perhaps unintelligible to them? Here we would like to utter a word of advice. If the "Caduceus" is recognised as a valuable contribution to scientific knowledge and we have no reason to doubt it otherwise, then it would do more to raise the prestige of this University than any dozen "rag" magazines you may like to produce.

The future of the "Caduceus" is not as simple as one would like it to be. A time will soon come when we may be asked to hand our cherished work to some other organisation——what then?

NEWS AND COMMENTS.

Annual General Meeting.

The first general meeting of the Hongkong University Medical Society for the session 1924 was held on Friday, 25th January, 1924, at 5 p.m. in the Hongkong University Union Assembly Room with Prof. Shellshear in the chair.

Retiring Secretary's Report.

Subscriptions. There were 116 subscriptions for the session 1922-23, of which 95 were at $3 per head, the extra $1 being the interim subscription for the autumn term (October to December, 1922). Many members have not paid in their subscriptions in spite of repeated requests to do so.

Papers.

The total number of papers read during the session is twelve including only one undergraduate paper. Most of the undergraduate members approached to read papers seem very shy and reluctant to do so. I hope that in future a rule will be passed that every member must deliver a paper sometime during his membership—a rule which exists in the Edinburgh Medical Society where there is scarcely any need for the secretary to canvass for papers. Attendance at meetings when these papers are delivered is, however, very satisfactory.

Prizes.

I have been approached many times regarding the Ho Kwong and Dowbiggin prizes by new members of the Society. For their special benefit, I am giving details of these prizes which they can also gather from the first and second numbers of the Caduceus.

Ho Kwong Prizes.

These were instituted in 1918 through the generosity of Mr. Ho Kwong and were designed to encourage undergraduates of the Faculty to read papers and engage in discussions.

The first prize of the value of $40 in books is awarded to the undergraduate member who writes the best paper during the session.

The second prize of the value of $10 in books is given to the member who distinguishes himself most in the subsequent discussions.

The winner of the first prize for the session 1922-23 is Dr. Yue Man Kwong whose paper on "Congenital Syphilis" will be found in other pages of this issue.

Owing to the meagre discussion following the reading of this paper the second prize will not be awarded.

Dowbiggin Prize.

This is an annual prize of $100 presented by Mr. H. B. L. Dowbiggin for the best article showing evidence of post-graduate work contributed to the columns of the Caduceus by medical graduates of this University. All contributions sent in, provided they are of sufficient merit, will be published, the prize being awarded at the end of the year for the best.

Rules.

1. The prize shall be called the "Dowbiggin Prize."

2. It shall be of the value of $100 to be awarded annually for the best original contribution by a medical graduate of this University to the columns of the Caduceus.

3. The value of the contributions shall be judged by a committee consisting of :—

The Dean of the Faculty.

The President of the Society and one other graduate member of the Society who has specialised in the subject of the contribution. When the offices of Dean and President are held by the same person the senior Vice President shall act on the committee as well.

4. In the event of there being no contributions of sufficient merit, the prize shall not be awarded.

The winner of the Dowbiggin prize for the session 1922-23 is Dr. Yeoh Hone Soo, whose paper on "Fighting Framboesia in Malaya" was published in Vol. 2, No. 2 of the Caduceus.

Caduceus.

The different issues of the Caduceus have so far suffered defeat financially, but at last I am glad to note that the Caduceus has reached a sound footing both financially and scientifically. The last issue brought in a profit of $8.57, while it is very gratifying indeed to see that the Caduceus has been publicly acknowledged as a scientific journal, two articles from the last issue being reprinted in the China Medical Journal, an action which shows that the Caduceus has acquired a position of some importance. While commenting on the Caduceus I beg to express the thanks of the Society to Dr. M. K. Yue for editing the journal and for having placed it on such a firm basis.

Accounts.

The session closes with a balance of $137.02 as compared with $75.23 last year, due mainly to the better financial control of the Annual Dinner.

In conclusion, may I wish the Society prosperity and success for years to come.

Alteration of Rules of the Society.

Alteration of Rules 7 and 8 were effected at this meeting. For these rules refer to page 1. The present Rule 7 requires special mention. By it, members will see that the annual subscription for each member is raised to $4; each member will now however receive during the session 3 copies of the Caduceus—a copy of each issue—without extra charge. This rule ensures the support of every member of the Society, and places the journal on a firmer financial basis.

Officers for the Session 1924.

A list of the new officers and Committee elected for the session 1924 is given on the first page. A hearty vote of thanks was accorded to the retiring Committee, especially to the energetic secretary.

Hospital Work at the University Clinics.

With the arrival of a Professor of Medicine and the return of the Professor of Surgery, we are expecting to do great things in the clinics. The wards, especially in the Government Civil Hospital, are now very well equipped. Only recently a new medical ward for the University has been furnished, and a new X-ray plant installed. The hospital can also be proud of its nursing staff, which is very efficient, and so strict in the observation of rules, that we can say without any doubt that if the right rules are made, we shall not lack help.

In the medical unit under Prof. Anderson's guidance, students are probing deeply into all the cases admitted, and following their progress after the dismissal. In the out-patients department, which has of late been greatly improved, the newest addition to the equipment is a department of dentistry. Students are also making notes as to the progress of cases under the latest medical treatment

carried out by the Professor of Medicine, for example Insulin in diabetes, Old Tuberculin in certain tubercular cases, and Thyroid Extract in cases of hypothyroidism.

In the surgical unit students are beginning to appreciate the efficiency and amount of work that can be done when there is harmony and co-operation among the members, especially dressers and ward clerks. Professor Digby who, while on leave visited the leading surgical clinics in America is demonstrating to the students on operating days, the different methods and techniques, for any particular operation, employed by the American Surgeons.

It is therefore not surprising that attendance at both medical and surgical lectures is, of late exemplary and we hope that the interest manifested by the senior students will steadily increase, so that junior members of the Faculty may have before them models of perseverance and industry to emulate.

Personal.

Our Vice-Chancellors. We regret that our Vice-Chancellor Sir William Brunyate has completed his term of office, and is retiring from active work. Though Sir William, being a mathematician and lawyer, is perhaps more interested in the other Faculties, the Medical Faculty will remember that it was during his term of office that the Rockefeller Benefaction was received and Chairs of Medicine and Surgery created. It is rumoured that an application has now been sent in by him to the Rockefeller Foundation for $250,000 for the establishment of a chair of Obstetrics, and this we hope will be created and filled by the beginning of next session. The University showed its appreciation of his services by honouring him with the degree of L.L.D. (*Honoris Causa*). His popularity among the students was manifested by the "ragging" he had on the day of the congregation and the concert given by the student body in honour of his departure. Mr. Hornell, our new Vice-Chancellor is a great educationalist, with long years of civil service behind him. He has come at an opportune time to guide this Lighthouse of the East, and we hope that under his expert guidance, it may shed its rays of education and enlightenment far and wide.

The congregation was also honoured by the presence of the first Vice-Chancellor, H. E. Sir Charles Eliot, G.C.M.G., now British Ambassador at Tokyo, who also received the honorary degree offered him by the Court on his retirement from the post of Vice-Chancellor.

The occasion was altogether unique and will long be remembered by those who were privileged to be present.

We learned with much regret of the death of Dr. George Duncan Whyte, one of the examiners for the M.D. degree. He died at the Matilda Hospital, Hongkong on November 25th, 1923. He was a missionary of Swatow and his remains were sent to Swatow for interment by the steamer Haiching on November 27th. A number of personal friends of the deceased boarded the Haiching just before she sailed, to pay their last tribute of respect.

Dr. Whyte always took a great interest in scientific medicine and was one of those responsible for the creation of the Research Committee of the China Medical Missionary Association and for the important scientific work done by the association. He is a great loss not only to the mission field but also to the cause of Western Medicine in China.

Mr. R. W. Barney, our lecturer on Biology, has gone on leave. Professor Earle, and Professor Shellshear are acting as joint lecturers on Biology during his absence.

We extend our warmest congratulations to Dr. Thung Siang Swee, a graduate of our University, for having joined the ranks of the Benedicts. We wish him a happy matrimonial life.

We congratulate Dr. E. H. Lim, who has just completed the post-graduate appointments of House Physician and House Surgeon and Chinical Assistant in Ophthalmology, for being awarded a China Medical Board scholarship at Peking. He has proceeded to the Peking Union Medical College to further his studies in Ophthalmolgy under Professor Harvey Howard.

We wish him every success in his work.

Inter-faculty Matches.

A triangular inter-faculty contest in cricket has been started in the University. The keen interest shown by the whole student body in the competition among the three faculties for the first place shows that the spirit of healthy rivalry is a predominant feature in every one of our students. Members of the Staff also took part in the matches, all of which attracted a good crowd of spectators. From the exuberant enthusiasm displayed, we are confident that inter-faculty matches in other lines of sport such as football, basket-ball and tennis will have the approval and support of the students.

We have to thank the wives of the deans of the three faculties for the excellent tea they provided during the matches.

Greens.

The following members of the Medical Society have been awarded University "greens" for the session 1923.

Cricket.

A. A. Rumjahn.

Tennis.

A. A. Rumjahn.
M. K. Yue.
H. M. Soo.

Football.

S. A. M. Sepher.
D. Laing.
D. K. Samy.

Sports.

T. L. Cheah.

We offer them our congratulations, and hope they will secure further laurels in the realm of sport.

Congregation.

A fairly large congregation took place on January 9th, 1924 at 5 p.m. when amidst the customary solemnities the following gentlemen received their M.B.B.S. degrees.

Messrs. T. L. Cheah, S. N. Chau, S. C. Chia,
T. T. Mok and L. S. Shin.

We extend to them our heartiest congratulations and wish them every success in their sphere of life. We are confident that wherever they go, they will not forget to promote the interests of the Society with which they have been associated for so many years, and of which we trust they will continue to be active members.

Acknowledgments.

We beg to acknowledge the receipt of the following contemporaries:—

St. Mary's Hospital Gazette. *(London).*

The Medico. *(Singapore).*

SOLUTION OF CASES FOR COMMENTARY.

No. 1. *Diagnosis.* A momentary ping-pong ball depression of the calvarium produced oedema and possibly bruising of the right cerebral motor cortex, most marked over the middle or "arm" area. This at first produced stimulation and then paralysis of the effected area.

Treatment. Similar symptoms in an adult would have demanded immediate operation. At this age depression of the inner table could hardly occur. There were no signs of general compression from haemorrhage. The child was kept quietly in bed.

Prognosis. Next day paralytic symptoms began to disappear and in a few days the baby was apparently recovered.

Note. This case illustrated the nmemonic that with cortical lesions, conjugate deviation of head and eyes is always as if they were looking at the more active limbs, that is, at the twitching limbs if the case is a convulsive one; or at the normal limbs if, the case is a paralytic one.

No. 2. *Diagnosis.* The following signs *indicated increased intracranial pressure*:—

1. headache,
2. history of giddiness,
3. papillœdema,
4. slow pulse,
5. constipation.

The lesion was *cerebral* because of the:—

1. history of forgetfulness,
2. delayed cerebration,
3. the ocular and frontal distribution of the headache,
4. the difficulty in writing his meaning or in registering what he read.

The trouble was *left sided* because of:—

1. the weakness of right upper and lower limbs (the latter definitely of upper neurone type)
2. the inability to realise the meaning of words he could read
3. the inability to express his meaning in writing a letter
4. the pain in the left eye greater than in the right
5. the slight left ptosis.

2 and 3 above further localised the *centre of disturbance* in the angular or possibly the first temporal gyrus. The nature of the tumour was uncertain.

Treatment. It was decided to treat the patient with very large does of potassium iodide for two weeks unless pressure symptoms increased when immediate left decompression operation would have to be performed. If there was no improvement after the two weeks a left bone-flap exploration with decompression (and subsequent removal of tumour, if feasible) was contemplated. This would have been done in several stages. A decompression immediately over the tumour is preferable especially in operations on the left side. But as the diagram shows, this could not have been performed under cover of the temporal muscle in this case.

The question of lumbar puncture was discussed. It would have enabled a Wasserman test of the cerebrospinal fluid, and a measurement of the pressure. It would have been dangerous because relief of pressure in the spinal theca might have caused a minute further displacement of the brain with sudden death.

Ventriculography would probably have been of great value in confirming the site of the tumour, but the diagnosis was sufficiently clear to obviate a further test not entirely free from risk. X-ray examination for thickening or thinning of the skull should have been undertaken. Localised thickening would have indicated a meningioma.

Prognosis. To obtain the best results these cases should be subjected to operation even before symptoms of intracranial pressure are obvious. One may recall that the increased intracranial pressure is not all due to the pressure of growth of the tumour but is largely the result of interference in various ways with the circulation of the cerebrospinal fluid.

Before the course of treatment outlined above could be commenced the patient suddenly became unconscious, with stertorous breathing, blue and congested, and died before an emergency decompression operation could be begun. The point was raised whether (supposing the onset of extreme pressure symptoms had been slower) an intravenous injection of hypertonic saline could have lowered the intracranial tension (following Weed's experiments) sufficiently long to have enabled a simple decompression operation.

Post Mortem Examination showed atheroma of the aorta. A tumour the size of a duck's egg occupied the site of the left angular gyrus and extended deeply to reach the posterior end of the central part of the lateral ventricle. The left lateral ventricle was slightly distended and distorted and the fluid content much increased. The dura mater was not adherent to the tumour nor was the overlying calvarium thickened.

The surface of the tumour was harder on palpation than the brain tissue and was tough and yellowish in colour. The deeper parts were softer, yellowish grey and very friable. It was possible to digitally separate the tumour from the surrounding brain tissue.

There was no haemorhage into the tumour and sudden death must have been due to some slight alteration in the circulation of the cerebro-spinal fluid leading to an increase of pressure, or possibly to toxic products from the tumour entering the fluid.

Under the microscope the tumour presented the appearance of a glioma; the exact nature is still the subject of investigation.

Appointments.

The following Appointments have been made:—

Post Graduate.

House Surgeon,		
	January to June,	Dr. Yue Man Kwong
House Physician,		
	January to June,	Dr. Chia Shih Ching

Under Graduate.

Surgical Ward Clerks,		
	January to March,	Tsang Fuk Cho
		Tsoi Tsz Shek
		Yuen Wm.
Surgical Dressers,		
	January to March,	da Roza, C. F. X.
		Teo Kah Toh
		Yeo Kok Cheang

Junior Medical Ward Clerks,		
	January to March,	Lee Boon Choe
		Teh Hui Seng
		Tseung Fat Im
		Wong Augustus Din
Senior Medical Ward Clerks,		
	January to March,	Chow Wei
		Lung Hsing Kuei
		Wong Yan Kwong
Obstetrics Clerks.		
	January to March,	Shem Albert
		Yip Keung Ki
Pathology Clerks,		
	January to February,	Li Tsoo Yiu
		To Shiu Hung
	March to April,	Cheah Chong Chee
		Yeoh Cheang Hoe
Anaesthetic Clerks.		
	January to February	Lam Shiu Kwong
	February to March	Soo Hoy Mun

K. C. Y.

THE CADUCEUS.

HONGKONG UNIVERSITY MEDICAL SOCIETY

RULES.

1. This Society shall be called the Hongkong University Medical Society.
2. A. The object of the Society shall be to hold meetings at which papers shall be read, or discussions held, on medical and general subjects: and to promote social intercourse among its members.
   B. The Society shall produce a journal to be called the "Caduceus" as a record of the proceedings of the Society, and for the publication of original articles in Medical Science
3. All undergraduates, graduates and members of the teaching staff of the Medical Faculty of the Hongkong University shall be members of the above Society; and also such other persons as may be elected at a general meeting. Medical Practitioners registered in Hongkong shall be invited to join the Society as members.
4. A. There shall be a President, Vice-Presidents, a Chairman of Committee, an Honorary Secretary and five other members of the Committee, all of whom are to be elected annually by members of the Society at the first general meeting of the academic year. Vacancies occurring between such meetings may be filled by the Committee.
   B. The member of the staff and the student representative on the Union Council shall also be ex-officio members of the Committee.
5. A. The management of the Society shall be vested in the said Committee consisting of the Chairman and five other members, together with the Honorary Secretary, who shall be ex-officio member of the Committee. Three members shall form a quorum.
   B. The Journal of the Society shall be controlled by the said Committee who shall appoint:—An Editor, an Assistant Editor and a Business Manager, who, together with the Chairman of the Committee shall form an Editorial Board.
6. The President or a Vice-President shall preside at general meetings or in their absence, a Chairman may be elected from among the members present.
7. Each member shall pay an annual subscription of $4 which shall be payable at the commencement of the academic year. The Honorary Secretary shall also act as the Honorary Treasurer.
8. No alteration of these rules, nor any addition thereto shall be made except at a general meeting of which not less than seven days' notice shall be given.

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