

TROPICAL DISEASES: NOTES ON SOME OF THE MORE INTERESTING CASES RECENTLY UNDER TREATMENT IN EDINBURGH. ✓

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WHILE it is hoped these notes will prove of interest to the tropical practitioner, they are also intended to direct the attention of medical men at home to the fact that, owing to our rapid colonisation of tropical and subtropical countries, there is a steady increase in the number of persons returning from these countries suffering from tropical affections. These persons belong to all classes of society, and therefore it is important that all medical men should be alive to the possibility of meeting with cases of this nature in their practice. It is generally acknowledged that such cases are often unrecognised, and consequently receive inadequate treatment; moreover, in certain affections failure to recognise early cases may not only entail much avoidable suffering, but may, through spreading of the disease, cause serious loss in wages to the industrial population. An example of this is furnished in the occurrence of ankylostomiasis in miners in Germany, France, and Cornwall.

The cases here described furnish proof that the number and variety of tropical affections encountered in Scotland is much greater than is generally supposed.

Malaria.—Cases of this disease are numerous (there were three in one ward in the Royal Infirmary a week ago), the patients, men, women, and children, coming from many different regions, as India, Africa, Malay, West Indies, and Panama. Most of the cases were of the benign tertian type; but two men from Panama suffered from severe attacks of the malignant variety, the blood showing crescents and rings, while another case, from South America, had double infection, malignant and benign.

All the cases were easily diagnosed by blood examination, though in one or two instances this entailed prolonged search, and all, including a boy who developed blackwater fever, recovered under the usual treatment.

Kala azar.—Fortunately, this disease is seldom seen in Europeans at home. A case which ended fatally some three months ago was under careful observation from the earliest appearance of the symptoms—a period of six months—and presented many points of interest. This and another, which also terminated fatally, are, so far as I am aware, the only cases which have been seen in Scotland.

CASE.—The patient was a young medical man who had contracted the disease while engaged in research work in the Soudan.

Fever of an irregular type, the earliest symptom, was at first attributed to malaria; but this was negated by repeated blood examinations. Enteric and Malta fever were excluded by agglutination tests. Cultivation of blood drawn from a vein was also negative.

During the whole course of the disease a four-hourly chart was kept, and a peculiar type of temperature associated with kala azar—a double daily rise—with rapid enlargement of the spleen and a marked leucopenia (the white cells sometimes being as low as 800 per c.mm.), rendered the diagnosis comparatively easy, though it could not be verified during life, as the patient refused permission for splenic puncture, and repeated examinations failed to show the presence of the Leishman-Donovan body in the peripheral blood. Patton (who has recently successfully worked out the development of the parasite in the bed bug) states that in every case it is possible to arrive at a diagnosis by finding the parasites in the white cells of the peripheral blood, but admits that, owing to the scanty number of these cells in this disease, and the very small proportion of them which contain parasites, a tedious search is often necessary.

The patient showed other signs and symptoms characteristic of the disease: a very irregular temperature curve, the fever sometimes being intermittent, at others remittent in type; the tongue was clean, and the appetite good throughout; death was preceded by diarrhœa. Various remedies were tried, including atoxyl, guaicol, quinine, and methylene-blue. With guaicol and methylene-blue, some improvement in the condition was noted, but it was only temporary.

It was noticed that on several occasions the urine showed a brilliant diazo reaction. At the post-mortem examination the spleen was found to weigh $7\frac{1}{2}$ lb., the liver was somewhat enlarged, and there were numerous ulcerated patches in the large and small intestine. Portions of other organs were preserved, but they have not yet been thoroughly examined.

Minute examination of the spleen showed that the distribution of the parasites was most irregular; in fresh smears taken from certain portions they were fairly numerous, but it was impossible to find them in smears made from other parts of the spleen.

This is a point of great practical importance. It is well known that splenic puncture for diagnostic purposes is occasionally followed by a fatal result, and it is highly probable that in this case, had this procedure been adopted, a portion of the spleen free of parasites might have been explored. Since it has been shown that examination of the peripheral blood is usually conclusive, it would seem that puncture of the spleen is unjustifiable.

It is usually held that kala azar is invariably fatal, but it is reassuring to know that occasionally a perfect recovery has been recorded in Europeans.

Beri-beri.—Since the description in these columns (February 1906) of an infected European crew at Leith, several cases of this disease have come under notice in Europeans and Chinamen. As

a rule, they were of Wright's "residual paralytic" type, and rapidly improved under treatment.

Yaws.—Satisfactory results were obtained in a case from the administration of atoxyl combined with local applications of collodium callosum, and gentle scraping with a sharp spoon. After the yaws, which chiefly affected the hands and feet, had healed, the whole body was one day found to be covered with a "coppery" rash, which disappeared in a few days under the administration of mercury and potassium iodide.

After the lapse of some months, no signs of the disease were manifest, and the patient (who, by the way, when he first came under observation, was found to be also suffering from Dhobi's itch) was permitted to return to Africa.

Dysentery and liver abscess.—Cases of amœbic dysentery have been fairly numerous; all recovered except in one instance in which death resulted after formation of liver abscess.

Consideration of the cases of liver abscess which came under observation tend to confirm the opinion that this condition is very common in Europeans returning from tropical countries, and that the diagnosis is often by no means easy. One case had been diagnosed as empyema, another in which the abscess had burst through the lung was on the homeward voyage classed as phthisis; a third in which a small abscess undergoing "natural" cure was found at a laparotomy, had been sent in for operation for gall stones.

The fatal case referred to above presented many points of interest. The amœbæ were readily found in the stools, in the discharge from the abscess from the third day after operation till the death occurred, and in the sputum. After death, sections of the liver and lung showed the parasite not only in the walls of the abscess cavity, but in blood vessels of the liver and in the alveoli, smaller branches of the bronchi and blood vessels of the lung.

Recognition of the amœbæ is more easy in fresh preparations of stools, sputum, or discharges, than in stained specimens. The slide is most easily kept warm by placing a small electric lamp in contact with the stage of the microscope; the movements of the amœbæ can then be followed without difficulty.

For staining temporary films or sections, thionin-blue gives the most satisfactory results, as the amœbæ stain readily and are easily seen, but for permanent preparations iron alum and Heidenhain's hæmatoxylin give good results. Sections stained by this method ten years ago are still clear and show every detail.

Sprue.—Milk diet with phosphate of soda occasionally varied by meat juice gave the best results. In one case, which ended fatally, the muscle changes recently described by Bramwell were well marked.

Ankylostomiasis.—The two men suffering from ankylostomiasis, to whom reference was made in these notes in January 1907,

eventually made perfect recoveries, but in one instance the disease was very resistant to treatment—large doses of thymol (40 grs.), given with the usual precautions, had to be administered at intervals for some months before the patient could be declared free of the disease and allowed to resume work as a miner.

In the *Journal of Tropical Medicine*, 1907, November 1, p. 352, Brand describes a simple, but apparently excellent, method for the cultivation of larva.

Bilharziosis.—During the South African war a very large number of our soldiers contracted this disease, and are now, having left the service, scattered all over the country. It is well this should be known, as men suffering from the disease may appear in the most unlikely places, and errors in diagnosis are not improbable.

By the kindness of the senior medical officer at the Castle, I have been enabled to examine many of the men in receipt of invalid pensions who periodically report themselves. On occasion as many as twenty may be seen in one day. As a rule, the men object to enter a civil hospital as long as they are fit for even light work, but several interesting cases have been under treatment. One man developed perinephritic abscess, and later stone in the bladder. In Egypt it has been recorded that in cases of bilharziosis in which death resulted from some acute form of disease as enteric or dysentery, the adult worms were found to be dead, and the use of sera as a curative agent has been suggested. In this particular case, whether as a result of the acute suppurative condition or the repeated administration of chloroform for examination and operation, it was found impossible to hatch the ova found in the urine, though this had been easily accomplished in all the other cases, and the man left the hospital apparently cured. Treatment of this disease has hitherto been so uniformly unsuccessful, that in another case a trial was made of atoxyl. Some improvement resulted, but the treatment had to be discontinued, as when the dose was increased to $2\frac{1}{2}$ grs. the patient complained of dimness of vision, and was found to be suffering from subconjunctival hæmorrhages. It is intended to make further trial of this mode of treatment.

Among other tropical diseases which came under notice may be mentioned a case in which *Filaria nocturna* (*Microfilaria bancrofti*) was found in the blood, and another with peculiar transitory swelling of the upper extremities (which will probably prove to be a case of infection by *Filaria loa*) in which an eosinophilia of 67 per cent. was noted on one occasion.