

(b) The blood pressure is slightly but definitely above normal.

(c) The albumin-globulin ratio is 7:1.

The possibility of the case being one of hydro-nephrosis is also excluded by the following facts:—

(a) The twelve-hourly collections of urine, collected separately during day and night, show no difference as regards quantity, specific gravity, protein content, etc.

(b) The total quantity of urine passed in 24 hours is not excessive.

(c) There is no history of passing large quantities of urine periodically.

Conclusions

It is evident from the results of the tests done that the existing kidney is definitely functionally defective. The specific gravity of the urine is persistently low and is unaffected by food or exercise. The urea concentration test gives very low results showing definitely that the kidney is markedly defective as regards its power of concentrating as well as excreting urea and other colloids. There is retention of both non-protein nitrogen and urea in the blood. The poor excretion of diastase in the urine also lends an additional support to this view. Though the presence of casts, especially the presence of epithelial casts in moderately large numbers, would have lent further support to the suggestion that the kidney is diseased, their absence from the urine does not in our opinion disprove the conclusion arrived at by us. Experience has shown that casts may be few or absent even in grave renal lesions.

A FATAL CASE OF SEVERE MALIGNANT TERTIAN MALARIA

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ASSISTANT SURGEON B. M. DAS GUPTA, L.M.P.

and

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M. R., a Hindu male, aged 45 years, was admitted into the Carmichael Hospital for Tropical Diseases on 12th July, 1932, with fever. As the patient came in in the afternoon he was seen by the house physician. He had a temperature of 102°F. and looked very ill.

Past history.—The patient had been having fever off and on since June 1931. He was admitted into the Carmichael Hospital for Tropical Diseases on 26th September, 1931, when benign tertian rings and scanty gametocytes were found in his blood; the spleen and liver were palpable. He was treated with quinine and was discharged from the hospital clinically cured on 8th October, 1931.

Condition on admission.—12th July. Examination of blood showed a very large number of malignant tertian rings and scanty benign tertian

tropozoites. One tablet of atebirin (0.1 gm.) was administered soon after admission, another a few hours later.

13th July.—The patient was examined in the morning by one of us (R. N. C.). He looked very ill and drowsy; an immediate examination of blood and a malarial parasite count was made.

1 P.M. The parasite count was 1,260,000 per c.mm., young rings and scanty schizonts being present. 7½ grains of quinine intravenously was ordered, but only 5 grains could be given as the patient's pulse became very weak, although the injection was given very slowly. Examination of blood every three hours was carried out.

4-50 P.M. The infection was so heavy that it was not possible to do the counts by Sinton's method of the enumeration of parasites against the avian corpuscles. For this reason the percentage of the red blood corpuscles infected and the total red cells per c.mm. were estimated. The latter were 4,680,000 per c.mm., and as 54.2 per cent. of the cells showed the infection the total number of parasites per c.mm. amounted to 2,527,000, i.e., twice the number present before the administration of quinine.

5-30 P.M. A second injection of 8 grains of quinine was given.

8-25 P.M. 67.4 per cent. of the red cells were found infected, out of a total of 4,180,000 per c.mm., counting only one parasite per infected cell, the total number of parasites was estimated at 2,800,600 per c.mm., but, as a multiple infection was the rule—some cells containing as many as 4 or 5 parasites—the actual number of parasites was much more than the above figure. The phagocytosis of parasites, chiefly schizonts by large mononuclears and polymorphonuclears was noticed.

10-30 P.M. The patient became comatose and died.

Blood taken half an hour before death showed a heavy phagocytosis of the parasites. This phenomenon, though often seen in the blood of the *M. rhesus* with a very heavy plasmodial infection—especially after the administration of quinine (unpublished observations by Knowles and Das Gupta)—and in the blood smear from internal organs of birds infected with proteosoma following administration of quinine, has not apparently been seen by any previous workers, except Knowles and Das Gupta (1931) who only once encountered scanty phagocytosis in a case of infection with *P. falciparum*.

Thomson and Robertson (1929) give the figure of a polymorphonuclear leucocyte containing two mature schizonts of *P. falciparum*. They do not mention whether the material was derived from peripheral blood, spleen juice or culture.

Remarks

1. When the infection is very heavy, as in the case referred to, no antimalarial remedy, by whatever route it may be given, appears to be of any avail. The same thing is observed in monkey malaria in which quinine almost always fails when the blood of a *M. rhesus* is heavily parasitized, that is, when the infected cells are 50 per cent. or over. The first effect of administration of quinine is often a definite increase in the number of parasites in the blood.

2. The heavy phagocytosis of parasites by the polymorphonuclear and large hyaline

A CASE OF CONGENITAL SINGLE
KIDNEY WITH DILATED URETER

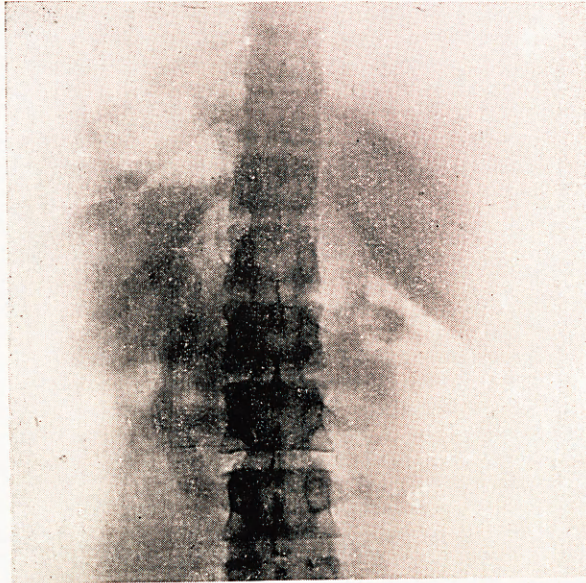


Fig. 1.—Skiagram of the kidney region 50 minutes after administration of uro-selectan. Note absence of the kidney on the right side and tremendous dilatation of the ureter emerging from the left kidney.



Fig. 2.—Note the dilated ureter in the left half of the pelvis with a kink at the bladder end.

A FATAL CASE OF SEVERE
MALIGNANT TERTIAN MALARIA

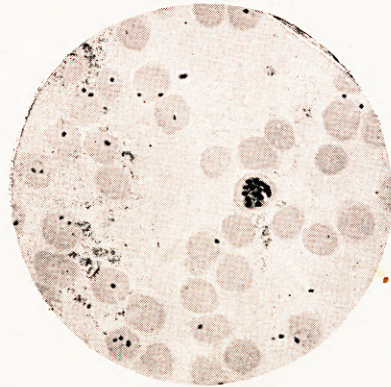


Fig. 1.—Smear taken at 1 p.m. just before the administration of quinine showing numerous rings and one schizont in the field.

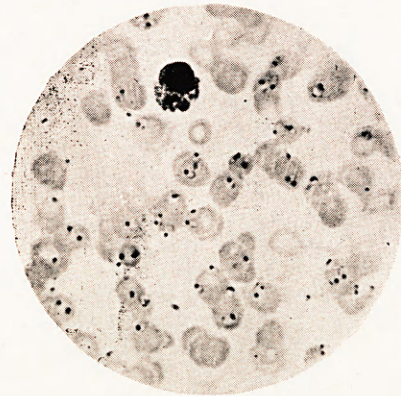


Fig. 2.—Smear taken at 8 p.m., 7 and 3 hours after the 1st and 2nd dose respectively of intravenous quinine, showing a very heavy infection, multiple infection of cells and phagocytosis.

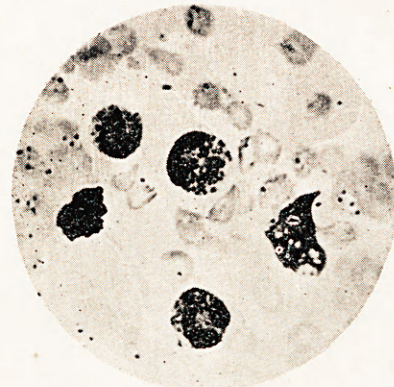


Fig. 3.—Smear half an hour before death showing the heavy phagocytosis of the parasites by the large hyalines and polymorphonuclear leucocytes.

leucocytes, a very uncommon appearance, was a remarkable feature of the blood film taken half an hour before the death of the patient.

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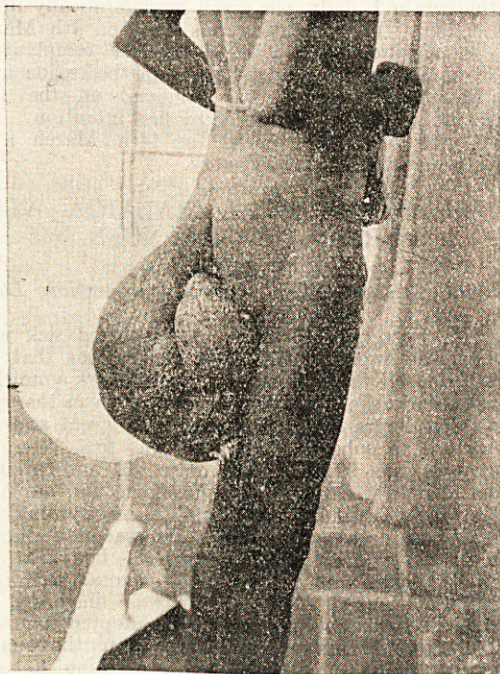
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A CASE OF LARGE PEDUNCULATED LIPOMA OF THE GLUTEAL REGION.

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A MALE, aged 35 years, was admitted to the hospital for a large tumour of the left gluteal region. It had been present for ten years gradually increasing to the present size. The



Right side view.

tumour was pedunculated, bi-lobed and was hanging from the left gluteal region (*vide* illustration). The skin over the tumour was ulcerated in places following the application of irritants.

The growth was quite painless but caused great inconvenience by its bulk and weight.

The tumour was removed under local anaesthesia. The pedicle contained a number of large veins and some arteries. The tumour weighed 16 pounds and was found to be a lipoma with no secondary changes. The pedunculated nature, the large size, the weight, and the bi-lobed character of the lipoma are interesting features.

GENERALISED EPILEPSY CAUSED BY A DURAL CYST

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THAT focal fits could be caused by lesions in the brain was first pointed out by Hughlings Jackson and ever since then Jacksonian epilepsy has come to be recognized as a type where focal lesions in the brain caused a focal discharge, which exteriorised in the form of a twitch, starting at a particular part or limb, gradually extended, and became a well-defined convulsion. This was often confined to a particular limb or to one side of the body. The gradual march of the spasm, as the discharge spread through neighbouring regions of the brain, was looked upon as characteristic. There was no loss of consciousness, and after the attack a residual paralysis was another feature indicating the location of the lesion. Afterwards it was recognized that such local fits could occur without any noticeable lesions, as a part of 'idiopathic' epilepsy. Still later, it was found that fits due to lesions of the brain might take the form of generalised convulsions without any localising features. The discharge spread rapidly through the whole cortex and generalised convulsions resulted. In such cases, loss of consciousness may occur because of the wide area of the cortex involved.

The following case of dural cyst is of great interest since it caused generalised epilepsy showing all the features of idiopathic epilepsy.

C. R., a labourer, aged 45, was admitted to the surgical wards of the Government Royapuram Hospital under the care of one of us (V. M.) for a lacerated wound of the left eyebrow due to a fall. The patient was subject to epileptic fits, had fallen down from the verandah of a house in a fit, and had cut his forehead just over the left eyebrow. During examination it was noticed that there was a depression over the opposite eyebrow with scar, where the frontal bone appeared to be driven in. On a careful analysis of the history it was found that 25 years ago, when the patient was wrestling with other boys of his own age, he had a fall and had hit his forehead against a stone, which had resulted in the depression noticed. There was a wound on the skin and severe bleeding at that time. After the fall he was unconscious for some time, he had gradually recovered and the wound had healed up without any further trouble, but the depression had remained. Some years after the fall the patient started getting fits accompanied by loss of consciousness. There was some unsteadiness in the gait, the patient being unable to walk in a straight line. A careful inquiry into the history showed that the only sign of any localising value was the occasional occurrence of a sudden mist before the right eye while the patient was walking, so that he suddenly staggered. The fits occurred by night and by day, and were always accompanied by loss of consciousness. Incontinence during the fit was unusual.