

## SCABIES IN BENGAL

By KENNETH MELLANBY, sc.d.  
Member of the Medical Research Council, Typhus Unit,  
S.E.A.C., India

In recent years, many reports have appeared alleging that scabies was epidemic in Bengal and other parts of India and that the disease was affecting a high proportion of the population. There was, however, some doubt as to whether all the so-called 'scabies' was in fact due to *Sarcoptes*, or whether some of the skin conditions noted were not due primarily to malnutrition and actual famine.

Knowing that I was likely to be in Calcutta, I discussed this matter with the public health authorities with the Government of India, who expressed the hope that, if at all possible, I would attempt to investigate this question while in Bengal and try to estimate whether it was indeed true scabies. I also discussed with them new prophylactic and curative methods which might possibly be applicable to Indian conditions.

While looking into this matter in Calcutta, I received much assistance from the Director, from Dr. Lowe and staff of the Calcutta School of Tropical Medicine, Dr. Grant of the All-India Institute of Hygiene and Public Health, the Director of Public Health, Bengal, and his assistants, and was also able to discuss with several members of the Friends Ambulance Unit, who have been engaged in relief work in the areas in Bengal affected by the famine. It is due to the co-operation of these various authorities that I was able to examine patients with skin infections at the out-patients' clinic at the school, among in-patients in the hospital and in a camp for destitutes. The following conclusions were reached as a result of these examinations and discussions:—

(1) The majority of patients are suffering from true scabies, i.e. from infection with *Sarcoptes scabiei*.

(2) This condition is widespread. The majority of destitutes show signs of present or recent infection, and a similar state probably exists in a wide section of the population.

(3) Although *Sarcoptes* is the causative organism, it is difficult to find live mites. This is because they are present in very scanty numbers, not because they are difficult to find in pigmented skin (where present they are easily recognized).

(4) Most patients have been infected for years, and have developed a substantial immunity to *Sarcoptes*, hence the small numbers of parasites. But due to the widespread existence of the disease, over-crowding, and the warm moist climate (resembling a permanent 'in bed' microclimate) re-infection constantly occurs, and these hypersensitive individuals give a maximum reaction.

(5) I saw no individuals who had developed any tolerance to *Sarcoptes*.

(6) The widespread skin lesions are almost entirely secondary to the scabies. It is possible

that malnutrition plays a part here. Some dermatitis is due to over-treatment with sulphur (usually accompanied by active scabies in healthy, untreated skin on other parts of the body).

(7) When the scabies is cured, and re-infection prevented, the secondary lesions can be cured also.

### Future action

It would be impracticable to try to set up clinics as in Britain to treat all cases and their families. The problem is a vast one, made even greater by difficulties due to caste and social custom.

In a previous communication (Mellanby, 1945) the author referred to a soap, known as 'tetmosol' soap, that has been produced for the treatment of scabies. If we could insure that all concerned used it, the disease would soon be eliminated. At present, however, poverty prevents the widespread use of any kind of soap.

In India, people not only wash but also rub oil into the skin, covering the entire surface of the body daily. If this oil could be suitably modified it might be used to eliminate scabies. A small percentage of tetmosol might be incorporated in oil used for washing purposes, or perhaps one or two per cent of 'mitigal'.

In my view, since the people of this country are so familiar with rubbing oil on the skin, it would be best, if possible, to try to incorporate any scabies remedy in this medium.

Readers of this article will, probably, be interested to learn that I have referred the matter to the Public Health Commissioner with the Government of India and also to my authorities, the Medical Research Council in the United Kingdom. I would express the tentative view that it is probable that, here in India, the end of the scabies epidemic is approaching on account of the rise in immune population resulting from the widespread outbreak, but it must be remembered that if the disease slowly decreases in extent, a non-immune population will again arise. In any event, efforts made at the present stage to control the incidence of scabies will greatly accelerate the natural decrease in the number of victims.

### REFERENCE

MELLANBY, K. (1945) .. *Brit. Med. J.*, i, 38.

## NON-TRAUMATIC RUPTURE OF SPLEEN

### WITH A CASE REPORT

By S. C. GUPTA  
Fraser Hospital, Burdwan

NON-TRAUMATIC or spontaneous rupture of the spleen is not rare in this country where pathological condition of the organ is so frequent.

The diseases of the spleen that predispose to its rupture are:—

1. Diseases of the spleen proper, e.g. infarction, torsion of the pedicle, tuberculosis of the spleen, hydatid cyst, abscess, etc.

2. Systemic illnesses that cause enlargement of the spleen :

- (a) Tropical diseases, e.g. malaria, kala-azar.
- (b) Infectious diseases, e.g. typhoid fever, influenza.
- (c) Toxæmia and pyæmic conditions, e.g. cellulitis, carbuncle.

In the above pathological conditions the changes in the spleen are :—

1. Replacement of the supporting framework of unstriated muscular tissue and elastic connective tissue by fibrous tissue and rigidity of the walls of the blood vessels.
2. Congestion of the pulp giving rise to increased tension under the capsule and softening of the texture.

A non-traumatic rupture is usually the combined result of the pathological changes. First sub-capsular hæmatoma results; later on the weakened capsule also yields leading to escape of blood into the peritoneal cavity. Cases are met with where laparotomy for acute pain in the abdomen revealed sub-capsular hæmatoma and not actual rupture.

Clinical features of non-traumatic rupture resemble those of perforation of a hollow viscus.

A more or less normal individual suddenly complains of pain in the abdomen which is also referred to the tip of the left shoulder (Kehr's sign) with collapse, vomiting and intestinal paresis. There is, in addition, abdominal rigidity, tenderness and shifting dullness in the flanks. But this dullness may not shift in the left side from the presence of clotted blood in that region (Ballance's sign). Soft friction sounds may in some cases be audible in the left hypochondriac region (Villibo's sign).

The following case was recently seen :—

M. T., 30 years, was admitted into the Burdwan Fraser Hospital on 9th June, 1944, at 11 p.m. for pain in the abdomen, nausea, and constipation since 9 a.m.

The patient, an inhabitant of Rawalpindi district, was employed at Panagarh in the district of Burdwan (a highly malarious place where the spleen index is 90 per cent) for a little over two months. He said that about 2 weeks after his arrival at Panagarh he had fever with rigor for about a week for which he was treated by his medical officer.

On the morning of 9th June, 1944, his bowels did not move satisfactorily and at about 9 a.m. when he was reading his holy book in a sitting posture, he felt sick and a severe pain in the left iliac region. He himself walked to his medical officer who gave him a dose of magnesium sulphate, but his pain gradually increased involving the whole of the lower abdomen and was referred to his left shoulder. A soap and water enema was also given with no result.

*Condition on admission.*—Pulse 80 per minute, volume and tension—fair; respiration—24 per minute; temperature—98.4°F.; tongue—clean and moist.

The patient was in great distress and pointed to his left iliac fossa and shoulder as the most painful areas. The abdomen was moderately distended. Mobility with respiration was restricted in the umbilical, left lumbar, hypochondriac and hypogastric regions; muscle guard ++ in the left lumbar and in the iliac regions. Tenderness +++ over 2 inches to the left of the umbilicus. Shifting dullness ++. Liver dullness unobliterated. Two repeated high enemas produced no result. A pre-operative diagnosis of 'perforative peritonitis' was made. The stomach was washed out.

*Operation.*—Under chloroform-ether anæsthesia, the abdomen was opened with a medial sub-umbilical

incision. Dark red blood welled out from the opening. Exploration revealed the presence of blood clots in the left hypochondriac region. A diagnosis of rupture of the spleen was therefore made, and the incision was enlarged up to the ensiform cartilage. As this did not give adequate exposure, the left rectus was divided across about an inch above the umbilicus. The spleen was delivered. The rupture was found on its visceral surface; its pedicle was tied with interlocked stitches in compartment from the posterior aspect. The organ was removed, the abdomen was emptied of blood as far as possible and the wall was closed in layers.

The removed spleen showed a ragged rupture 2¼ inches on its renal surface at the level with the lower part of hilum. It was 5½ inches long and weighed over 9 ounces.

The patient's blood was examined after the operation, which showed no malaria parasite. After a stormy convalescence and delayed wound suppuration, the patient was discharged cured on 29th July, 1944.

In this case, there was absolutely no history of trauma. The patient developed symptoms when he was practically at rest. The case is thus an example of true non-traumatic or spontaneous rupture of the spleen. The fever with rigor, a few weeks prior to the rupture, was probably malarial. The spleen was enlarged and therefore pathological.

I am thankful to Captain J. P. Dutt, Superintendent, Burdwan Fraser Hospital, for kindly permitting me to report this case.

## CONGENITAL ABSENCE OF THE SHAFT OF THE FEMUR ON BOTH SIDES

By S. S. KATDARE

CAPTAIN, I.M.S./I.A.M.C.

28 X-ray Unit, South East Asia Command

*Introduction.*—Congenital absence of the shaft of the femur is very rarely described in the medical literature. The commonest congenital abnormality mentioned up till now consists of deformity or defective and retarded growth, or defective ossification, of the upper half of the shaft of the femur. The radiographs in these cases reveal that the upper half of the femur is absent. But subsequent operative procedures in these cases have shown that actually there is a cartilaginous portion present, representing the upper half of the shaft of the femur. At later ages, from 20 to 25, the radiographs of such cases show evidence of partial ossification in the cartilaginous portion of the femur.

*Development and ossification.*—Under normal circumstances the femur is developed mainly from five ossifying centres. The nucleus for the shaft of the femur appears at the 7th week of foetal life; the nucleus for the epiphysis of the lower end appears at birth; the nucleus for the head appears at about 10 to 12 months; the greater trochanter is ossified from one or more nuclei, which appear about the 4th year; the nucleus for the lesser trochanter appears about the 8th to 10th year.