

conducted into the axilla. The second pulmonary sound was reduplicated. The liver extended three inches below the costal margin. There was no œdema. The blood pressure was 120/80. The pulse was regular, ranging from 100 to 125 per minute. On x-ray examination marked prominence of the conus arteriosus was seen. The electrocardiogram showed right-sided preponderance and almost complete absence of T₁. The extrasystoles were found to originate in the left ventricle. On January 20th a distinct presystolic and a mid-diastolic murmur were heard just inside the apex.

The patient was given 10 minims of tincture of digitalis three times a day for 13 days after admission. Two days after the digitalis was stopped and 5 days after the pneumonia ended (*i.e.*, on January 30th), the heart rate suddenly dropped from about 100 to 50-60 per minute. The drop was found to be due to the complete omission of almost every second beat and the electrocardiogram showed an almost regular 2:1 heart-block. The P-R interval varied in duration up to 0.20 second. There was marked depression of the R-T segment in leads II and III and some elevation in lead I. The patient felt very weak. This state of affairs persisted until February 13th (14 days) when it was noticed that the pulse had become more rapid (about 75 per minute) and markedly irregular. Auricular fibrillation had set in. Electrocardiographic examination confirmed this, and revealed the fact that the R-T segment was now dislocated in lead III alone and only to a small extent. From February 13th onwards the pulse rate gradually increased until on the 29th it was 150 per minute. At this date digitalis was re-commenced and given in doses sufficient to maintain a pulse rate of 70 to 75 per minute. The patient left hospital in a fairly good condition on March 13th. The auricles were still fibrillating.

The above record shows that during the period of observation the patient developed three features indicative of myocardial injury, *viz.*, auricular fibrillation which apparently became permanent, temporary auriculo-ventricular block, and temporary dislocation of the R-T segment of the electrocardiogram. The first is of course very common in rheumatic mitral disease and its onset in this case was probably precipitated by the intercurrent acute infection, aided perhaps by the small doses of digitalis. The same factors were probably accountable for the block in the conducting tissue and the electrocardiographic changes. As, however, these features were temporary, the rheumatic condition must have played a smaller part in their production than it did in the case of the fibrillation. Dislocation of the R-T interval is most commonly associated with myocardial infarction but it has also been seen in acute rheumatic fever, in uræmia, and in pneumonia (Levine and Brown, 1929) and it can be produced by

anoxæmia, by alteration in the pH of the blood, and by digitalis (Gilchrist and Ritchie, 1930). There was no reason to suspect myocardial infarction in our case.

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A CASE OF SEVERE ENTERIC-LIKE FEVER DUE TO *BACILLUS ALKALIGENES*

By V. SRINIVASAN, M.B. (Madras), F.R.C.S. (Eng.)
LIEUTENANT, I.M.S.

Indian Military Hospital, Alipore, Calcutta

SEPOY, S. S., was admitted to the Indian Military Hospital, Alipore, on 19th March, 1932, complaining of severe headache, pain all over the body, and fever which started without shivering.

Examination.—A well-nourished man, temperature—103°F.; pulse—100 per minute, regular, soft, markedly dicrotic; abdomen soft, some tenderness in the right iliac fossa, superficial abdominal reflexes present; liver and spleen not palpable; bowels constipated; tongue coated with white fur; lungs—normal; heart—systolic murmur in pulmonary area; blood—no malarial parasites.

On 21st March, temperature—104°F., looking drowsy, tongue getting browner, pulse—110, still markedly dicrotic; complains of severe headache and pain all over the body, especially in both loins, spleen not palpable; urine—specific gravity 1020, no albumin or sugar; blood—no malarial parasites; total white blood corpuscles—6,600 per c.mm., polymorphonuclears—73 per cent., lymphocytes—19 per cent., eosinophiles—5 per cent., mononuclears—3 per cent., culture—sterile. Motions—no cysts found, but a few ankylostome ova present.

On 22nd March, drowsiness quite marked, tongue brown and dry, temperature—103°F., pulse soft not dicrotic, low muttering delirium at night, with picking at the bed clothes.

On 23rd March, condition the same, but temperature rapidly fell with sweating, drowsiness and delirium persisted. Tongue brown and dry; pain so severe as to warrant morphia.

On 24th March, temperature normal, but general condition the same.

On 25th March, temperature rose to 101°F., vomited bilious matter twice, pain still severe, especially in the loins, controlled by morphia, delirium at night.

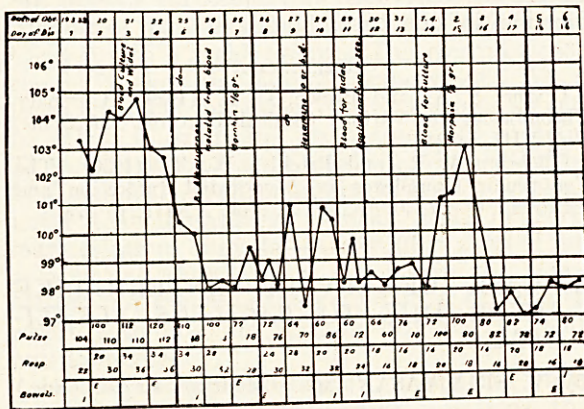
On 27th March, condition the same. Retention of urine relieved by catheter. Urine showed albumin and a few renal epithelial cells; the culture was sterile. Total leucocyte count was 5,600 per c.mm. Marris' atropine test was positive (pulse before injection—59, after injection—60).

On 28th and 29th March, temperature intermittent; little change in general condition; urine contains albumin and casts.

On 30th and 31st March, temperature normal though the general condition was bad; he passed urine and motions in bed, was restless and delirious.

On 1st April, temperature went up to 103°F., drowsiness increased; pain in the loins still present; abdomen very soft, no rigidity or tenderness, marked pulsation of aorta in the epigastrium; pulse again became dicrotic and was relatively slow (100). Chest—diminished resonance and feeble breath sounds on the right side; no bronchial breathing or adventitious sounds. Heart—

systolic murmur at the apex. Ammonium chloride and hexamine administered.



On 2nd April, temperature—103°F., general condition same. Exploration of chest revealed no fluid. Urine—albumin less than before. Widal—agglutination 1—250 against *B. alkaligenes*.

On 3rd April, temperature came down by crisis with profuse sweating, drowsiness and pain rapidly disappeared, pulse very weak, brandy freely given.

On 4th April, marked change in the general condition, looked bright, eyes clear, temperature normal, no pain anywhere, felt very hungry. Urine—albumin still present.

On 5th April, convalescence commenced and further history uneventful except that the urine showed a trace of albumin until 10th April.

Points of interest in this case are:—

1. The clinical picture was very like enteric fever (headache, drowsiness, relatively slow dicrotic pulse, etc.).

2. Though the temperature came down almost by crisis on the fifth day of the disease, the general condition continued to be bad with a typical typhoid state.

3. Presence of albumin in the urine from the eighth day.

4. Very severe pain in the loins relieved only by morphia.

5. Rarity of severe infections with *B. alkaligenes* which is usually a harmless inhabitant of the intestines.

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AN UNUSUAL CASE OF SPOROTRICHOSIS

By L. M. GHOSE, M.B., D.T.M.

Assistant Research Worker, Dermatology Department, School of Tropical Medicine and Hygiene, Calcutta (With kind permission of Lieut.-Col. H. W. Acton, C.I.E., I.M.S., Officer in-charge of Skin Diseases Enquiry and Director of the School of Tropical Medicine and Hygiene, Calcutta)

B. K. S., H. M., 38 years, came to the skin clinic with multiple subcutaneous nodules looking like boils, extending from the lower third of the right arm down to the wrist. The

nodules were of the size of a marble, 18 in number. These were distributed irregularly on the outer and posterior surfaces only, of the extremity. The body and other extremities were free. Two of the nodules were soft (suppurating) and the others were hard, red and painful (*vide* Fig. 1). He denied any history of injury, fever or syphilis. Duration of illness, 3 weeks.

The unilateral situation and irregular distribution appeared to be unlike that of common staphylococcal boils. There were neither any history nor any confirmatory signs nor symptoms of syphilis. The possibility of sporotrichosis was thought of but against that, there was no history nor any sign of injury and the nodules were not distributed along linear lymphatic channels as described in the textbooks; moreover, sporotrichosis is not common in India. Others were of the opinion that the case might be one of afebrile 'erythema nodosum' which is quite common in India. The case was then worked out according to the instructions of Colonel Acton.

In the meantime the patient was put on potassium iodide mixture.

The blood was examined for the Wassermann reaction and found negative. One hard and one soft nodule were incised and smears were prepared from inside the nodules. The smears stained with Leishman's stain showed small round deeply-stained bodies like 'yeasts' both inside and outside the polymorphonuclear and endothelial cells. These bodies might be mistaken for nuclear fragments.

Culture was also made on slopes of blood-agar, Sabouraud maltose peptone agar, and glucose broth. On about the tenth day the culture on slopes showed tiny colonies, cream coloured and radiating, and on the fourteenth day the growth in each tube was distinct, circular, gray and creamy in consistency, the central part raised and ending in a point, the peripheral part radiating. The culture in glucose broth was white with thick floccules at the bottom which floated on shaking. There was no contamination and the primary cultures in all the tubes were of the same nature. On examination mycelia, fine and septate, with small conidia given off directly from the hyphæ were seen. True conidiophores were absent. Subcultures gave a rapid growth at first gray and creamy, which turned black in 3 to 4 days. A hanging drop culture was prepared and the microphotograph of a 48 hours' growth was taken (*vide* Fig. II). The mycelia were fine, about 2 to 3 microns wide and septate. Chlamydo-spores both terminal and intercalary were present. The conidia were given off in clusters or singly, directly from the hyphæ towards the end or along the mycelia; true conidiophores being absent. The conidia were small, mostly oval (3 to 4 microns long and 2 to 3 microns wide), but some were round, with very short pedicles. Carbohydrates were not fermented (glucose, maltose, lactose, dulcitol, mannitol, dextrose, levulose saccharose, insulin, arabinose, salicin). The morphology together with the cultural characters and its actions on sugars were the same as *Sporotrichum beurmanni* (Matruhot and Ramond, 1905) var. *indicum* (Castellani, 1908).

The patient recovered with potassium iodide mixture without any local treatment.

The case is reported because sporotrichosis is not a common occurrence in India and this type of irregular distribution is not described in the textbooks.