3. The best treatment of tuberculous bursitis is probably early and adequate excision.

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ACUTE INTERSTITIAL POLYMYOSITIS TREATED WITH PENICILLIN

BY

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[WITH PHOTOGRAVURE PLATE]

An important feature of the following case of what is a relatively rare condition was the good response to penicillin, altering the course of the disease from a moribund state to complete recovery.

Case History

The patient, a peasant woman aged 42, was admitted to hospital on May 28, 1946. She had been taken ill rather suddenly on May 19, when she had a rigor and felt some pain in her right arm and left leg. The following day all her limbs were painful, but they did not swell until the third day of illness, when all limbs gradually became swollen. Her face remained unaffected. She felt very weak and perspired freely. The temperature was not taken. On the fifth day her condition became worse, the pain increased, and she felt "much heavier." She called in a doctor, who found her temperature to be 100.4° F. (38° C.). He gave her some medicine, but her condition did not improve. On the tenth day of her illness she was transferred to our hospital.

On examination all her limbs were greatly enlarged; the skin was tense and glistening; and active and passive movements were very restricted. The muscles appeared "hypertrophied," were tender, and some of them were transformed into large tumour-like lumps, especially the upper third of the right sternocleidomastoid, both biceps, both brachioradials, and the upper parts of the abdominal recti. This gave, in the epigastric regions, the impression of an enlarged spleen and liver. The abdominal and patellar reflexes were missing, but there were no pathological reflexes. The lungs, apart from a few rhonchi, were normal. The respirations were 26 and the pulse (120) was soft and regular. The heart was moderately dilated, the action regular, and the heart sounds clear; the blood pressure was 110/80 mm. Hg. The evening temperature was 102° F. (38.9° C.), and was of intermittent character.

Laboratory Findings.—Urine: acid, specific gravity 1031, trace of albumin; a few leucocytes, erythrocytes, and epithelial cells were seen in the deposit. A blood count showed: haemoglobin (Sahli), 83%; red cells, 4,240,000; white cells, 5,200 (segmented neutrophils, 84%; unsegmented neutrophils (*Stabzellen*), 2%; monocytes, 2%; lymphocytes, 2%; eosinophils, 10%). The eosinophils varied from 5 to 16% in different counts. The Wassermann reaction and Widal test were negative, the B.S.R. was 15 mm. (Westergren), and the residual nitrogen, 38 mg. per 100 ml. Blood cultures, electrocardiography, and x-ray examination were negative.

Treatment with "novurit," vitamin B, "neosalvarsan," and theobromine-caffeine had no effect. The patient remembered

that she had eaten pork meat and pork sausages before her illness, and, although the number of eosinophils was not high enough for trichiniasis and there were no swellings of the face and eyelids, a tentative diagnosis of trichiniasis was made, and a biopsy specimen was taken from the most swollen part of the right sternocleidomastoid.

Histology before Treatment with Penicillin (Plate, Fig. 1).—A pale-red soft piece of muscle the size of a large bean was imbedded in paraffin and stained with haematoxylin-eosin and van Gieson. As the photomicrograph shows, the normal muscle tissue was largely replaced by a very cellular inflammatory infiltrate consisting mainly of leucocytes, many of them eosinophils. The widely separated muscle fibres had partly lost their striation and had undergone waxy degeneration. Some appeared to have ruptured or been replaced by the inflammatory tissue. No trichinae were found in the sections examined, and the histological diagnosis was acute interstitial eosinophilic polymyositis. Cultures from the blood were negative, and as the biopsy material was put into formalin no culture could be attempted.

By now the patient's condition had become practically hopeless. On clinical grounds and theoretical consideration based upon the histological findings we decided to try a course of treatment with penicillin.

Treatment with Penicillin.—This was started on June 8, about the twenty-first day of illness. The patient was given 15,000 units of penicillin three-hourly, intramuscularly. On June 14, the sixth day of treatment, her temperature dropped to normal and remained so. The swellings were diminishing and her general condition already showed great improvement. After receiving 1,500,000 units of penicillin she felt so well that she was discharged on June 21. She has been feeling well and healthy since.

Before her discharge a second biopsy was performed, and an impressive change was seen in the microscopical picture (Plate, Fig. 2). The inflammatory infiltrate had largely gone and most muscle fibres appeared normal. The number of leucocytes, especially the eosinophils, had considerably decreased and there were mostly mononuclear cells in the specimen. Thus the histological findings testify to the effect of penicillin in this case. No further biopsy could be undertaken.

Discussion

Acute polymyositis Wagner is a rare condition affecting the muscles of the limbs and buttocks, which with the surrounding soft parts swell acutely. The general condition is disturbed, pain is a dominating symptom, and fever is present. According to Mayesima it is probably of septic origin. Acute polymyositis has been observed after influenza, tonsillitis, rheumatoid arthritis, meningococcal infection, suppurative processes such as tonsillar abscesses, etc., and also in epidemic form. Landsteiner found a streptococcus identified as *Str. polymorphus*.

In severe cases the disease often runs a short course, ending in weeks or months by death from asphyxia or aspiration pneumonia. Chronic cases may last one or two years. The disease resembles clinical trichiniasis, and was called pseudotrachiniasis by Hepp.

It can sometimes take a milder and more favourable course. In my case the patient's condition was rapidly deteriorating and looked clinically hopeless when treatment with penicillin was decided upon. Although one case is not sufficient proof, the quick recovery after treatment clearly indicates the role of penicillin in the treatment of acute polymyositis. The histological findings before and after treatment with penicillin give objective evidence of its effect in this case. Five months after her illness the patient was well and working. Her condition was perfect when last seen in May, 1947.

ADDENDUM.—Since this paper was written I have read an interesting report by M. Roch *et al.* (*Schweiz. med. Wschr.*, 1946, **76**, 1035) on a case of polymyositis which

ended fatally in a few months. In the final stages it was found necessary to perform a gastrostomy owing to severe dysphagia. The authors quote Scheuermann, who in 1939 collected from the literature 263 more or less verified cases of polymyositis, and they consider it a rare and usually fatal disease. In this connexion the above case might be of even greater interest.

Medical Memoranda

Case of Strangulated Diaphragmatic Hernia

The following case of strangulated diaphragmatic hernia is of special interest because of the limitation of all symptoms to the abdomen and the localization of all signs in the chest.

CASE REPORT

A man aged 61 was admitted at 10.20 a.m. on Nov. 20, 1946, complaining of severe hypogastric pain. The pain had started suddenly at 5 p.m. the previous day, becoming more intense during the first few hours, and since then had remained constant in intensity, although when the patient had first been seen by his own practitioner the pain had been epigastric in position. During the night the patient had vomited twice. There was no history of symptoms suggestive of previous gastric or duodenal ulceration or other relevant illness.

On admission the patient was deeply cyanosed and insisted on sitting forward; lying back increased his pain. On examination his abdomen was apparently distended, but no rigidity was present. Rectal examination showed no localized tenderness or other abnormality. The apex beat was to the right of the midline: clinical examination of the chest revealed the presence of a massive left-sided pleural effusion. X-ray examination confirmed the displacement of the heart and the presence of the pleural effusion. The blood pressure could not be measured in the arm.

A probable diagnosis of dissecting aneurysm of the aorta was made. Diagnostic aspiration of pleural fluid was performed, and the presence of 10% of blood in the fluid apparently confirmed the above diagnosis. Cyanosis rapidly gave place to increasing dyspnoea until death ensued at 8.10 p.m.

On post-mortem examination 9 ft. (2.74 metres) of small gut and 14 in. (35 cm.) of transverse colon, together with mesentery and omentum, were found strangulated in the left hemithorax. The slit-like opening in the diaphragm, which could just admit two fingertips, was situated about 1½ in. (3.75 cm.) to the left of the apex of the dome and 1 in. (2.5 cm.) anterior to it. There were firm adhesions on the lung surface of the diaphragm between the pleura and the mesentery of strangulated gut.

I am indebted to Mr. Lovelock-Jones, medical superintendent of Amersham Emergency Hospital, for permission to publish this case, and to Dr. Kurrein for the post-mortem examination.

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Von Jaksch's Syndrome in a Baby with Congenital Syphilis

The following case report seems to be interesting enough to be placed on record.

CASE REPORT

A 13-months-old baby girl was admitted to the children's ward on Nov. 27, 1946, with a history of severe anaemia and bleeding from the gums. She looked desperately ill and was very pale. The bridge of the nose was depressed, and the gums were swollen and bleeding. She was teething at the time. The lungs showed a mild degree of bronchitis. The heart action was regular but accelerated, with a soft systolic murmur over the middle of the sternum. The abdomen was somewhat distended, the spleen was greatly enlarged, and the liver was also enlarged, being palpable two fingerbreadths below the costal margin. The temperature was normal.

The blood count on admission revealed: haemoglobin, 38%; red cells, 1,300,000; white cells, 39,200; morphology—polychromasia well marked, anisocytosis, and poikilocytosis, a few megaloblasts; the differential count was: polymorphs, 65%; lymphocytes, 26%; myelocytes, 7%; reticulocytes, 2%. Coagulation time, 5½ minutes; bleeding time, 3 minutes. A bone-marrow puncture was attempted, but without success. The child's mother was suffering from syphilis, had a positive Wassermann reaction, and was receiving treatment. The baby also had a positive Wassermann reaction and had received antisyphilitic treatment. X-ray examination did not

reveal the presence of rickets. A diagnosis of von Jaksch's syndrome in a baby with congenital syphilis was therefore made.

Treatment consisted of a blood transfusion of 3/4 pint (425 ml.), and ferrous ammonium citrate, 5 gr. (0.32 g.), and vitamin C, 5 mg., thrice daily. Great improvement was shown. On Jan. 23, 1947, the findings of the blood count were: Haemoglobin, 75%; red cells, 4,900,000; white cells, 15,500; morphology—poikilocytosis and a few megaloblasts; the differential count was: polymorphs, 70%; lymphocytes, 25%; myelocytes, 5%. The bleeding from the gums had now stopped, and the spleen and liver had greatly decreased in size. The child made an uneventful recovery and seemed very well. She was discharged from the hospital on Feb. 7.

We would like to express our thanks to the medical superintendent, Dr. R. A. Grant, for permission to publish this report.

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Unusual Brain Abscess

On May 29 a boy aged 6 was admitted in a shocked condition to the out-patient department of this hospital. He had been injured five hours previously while fencing with another boy. The weapon used was a wooden board to which a nail was fastened. The parents noticed that the boy was very quiet and that he did not eat anything. On admission the patient was very sleepy; pulse 108 per minute, temperature 98.2° F. (36.8° C.), respiration rate 20 per minute. There was a small puncture wound above the right temple (right parietal bone). The wound was exuding blood mainly and also a small quantity of brain tissue. The pupils were contracted, equal in size and shape; they reacted to light and accommodation. Slight external strabismus of the right eye was observed. Superficial tendon reflexes were brisk. Abdominal reflexes were present. Both hands twitched from time to time. The sensory system appeared normal.

One hour after admission the child became unconscious. The coma lasted about one hour. He recovered consciousness after lumbar puncture. The cerebrospinal fluid was under great pressure; fluid at first appeared colourless, but later some blood came away. X-ray of the skull revealed a circular depression fracture of the right parietal bone. The fragment of cortex was displaced inwards and forwards. During the following fortnight the boy seemed to improve generally and mentally; however, from time to time the temperature used to swing from 97° F. (36.1° C.) up to 101° F. (38.3° C.). On three occasions it registered 102° F. (38.9° C.). During this period he had a full course of sulphamezathine for five days (65 tablets) and penicillin intramuscularly (50,000 units three-hourly). The slight squint in his right eye persisted throughout.

On June 12 the wound started to discharge pus. There were no localizing signs of an abscess present; however, a provisional diagnosis of a brain abscess was made.

On June 13 an incision was made over the perforation. The skull was found to be very thin. The opening into the brain was enlarged and it revealed a large brain abscess pointing inwards and forwards. Part of the brain was necrosed. A drain was inserted.

Systematic penicillin therapy was continued with 50,000 units three-hourly, combined with local injections of penicillin 10,000 units, t.d.s., into the abscess cavity. For a few days the child seemed to improve, but later it was noticed that he was getting much thinner and that his appetite was poor. He weighed then 2 st. 4 lb. (14.4 kg.).

In desperation we gave him cod-liver oil and insisted that he should have some nourishment; we succeeded, and in two weeks the child gained 1 lb. 14 oz. (850 g.) in weight.

On July 7 he was discharged, cured, with a slight squint of the right eye still persisting.

The cardinal features of this case were: (1) unusual method of injury (nail); (2) relief of symptoms following lumbar puncture; (3) absence of any localizing signs and symptoms of a brain abscess; (4) thinness of skull; and (5) the site of the abscess more or less coincided with the selected site of incision. This was also another revelation of the healing powers of penicillin.

I would like to thank Dr. R. Isaac, M.R.C.P., and C. J. Cellan Jones, M.D., F.R.C.S., for allowing me to report this case and for their co-operation and encouragement.

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CONGENITAL DEFECT OF LEFT DIAPHRAGM WITH VOLVULUS OF STOMACH AND TRANSPOSITION OF VISCERA: E. OWEN-LLOYD AND DEINIOL ROBERTS

FIG. 1.—Lateral radiograph after barium meal, showing large intestine in thorax. (Sept. 17, 1946.)

FIG. 2.—Small intestine leading into thorax appears taut. Considerable increase in size of stomach. (Feb. 26, 1947.)

FIG. 3.—Note size of liver and position of greater curvature.

FIG. 4.—Opening in diaphragm from below.

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FIG. 1.—Section of sternomastoid before penicillin therapy, showing extensive inflammatory changes ($\times 160$).

FIG. 2.—Same muscle fourteen days after treatment. Note disappearance of inflammation.