Treatment

American authorities have shown that streptomycin, chlortetracycline, chloramphenicol, and oxytetracycline are more effective in the treatment of this infection than the antimony preparations. Greenblatt *et al.* (1952) treated a large number of cases with these antibiotics and found that the average total amount of each necessary for cure was streptomycin, 23.96 g.; chlortetracycline, 35.5 g.; chloramphenicol, 36.1 g.; and oxytetracycline, 31.6 g.; and that approximately 9%, 15%, 24%, and 6% of the cases treated with these four substances respectively required re-treatment. They also found that 5% of the cases treated with streptomycin were resistant to this antibiotic, and one case (2.2%) was resistant to chloramphenicol. Later Greenblatt and Barfield (1952) concluded that oxytetracycline was probably the treatment of choice and that the optimal dosage was 2 g. daily for 10 to 20 days. In a small series of cases Wright *et al.* (1951) obtained good results with oxytetracycline 1 g. daily for 28 to 35 days. Niedelman *et al.* (1951) considered that 40 g. was the minimum amount of oxytetracycline necessary for complete recovery, although one of their patients was cured with 2 g. daily for nine days.

The dosage of oxytetracycline used in our series was 2 g. daily and of streptomycin 1 g. daily. With a migrant population like the Jamaicans effective follow-up is difficult. One case treated by streptomycin defaulted before healing was complete. Two cases given streptomycin for nine and fourteen days respectively defaulted two weeks after the lesion had healed. One case treated with streptomycin for three weeks has remained healed for four months. One case treated with oxytetracycline defaulted before healing was complete. One case given a three-weeks course of oxytetracycline defaulted a week after healing had occurred. Two cases given a four-weeks course of oxytetracycline have remained healed during an observation period of two months.

It is obvious that we cannot offer any comment of value on the treatment of granuloma inguinale, but we wonder if 1 g. of oxytetracycline daily for 30 days or longer would not prove more effective than a larger amount in a shorter period.

Earlier it was mentioned that the manner in which granuloma inguinale is transmitted is uncertain. If, however, it is a venereal disease the low incidence in the white population of endemic areas leads one to believe that it should not become a serious social problem here, although it may provide occasional diagnostic difficulties unless the possibility of its occurrence in white people is borne in mind.

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The Research Defence Society has published a pamphlet, *Anti-poliomyelitis Vaccination* (price 3d.), which poses and answers outstanding questions on this subject. The society exists to publicize the advances in medical knowledge due to animal experiments, and the fact that this involves no cruelty "in spite of the allegations to the contrary made by those who would like to bring this sort of medical research to an end." The questions and answers deal with the making of the vaccine, the chance of a child getting poliomyelitis, the proportion of paralytic to non-paralytic cases, and the conditions under which the monkeys needed for the vaccine travel and live. Inquiries to the Secretary, Research Defence Society, 11, Chandos Street, Cavendish Square, London, W.1.

Medical Memoranda

A Rare Type of Muscular Dystrophy

In the following case the clinical picture corresponded with that occurring in the distal type of myopathy first described by Gowers (1902), the diagnosis being substantiated by laboratory and electrical investigations.

CASE REPORT

A soldier aged 24 was admitted to hospital complaining of weakness of both lower limbs and difficulty in walking. These symptoms had begun at the age of 6 and had continued to date. The weakness had fluctuated a little from time to time, but had not progressed in severity to any marked degree. Earlier it had been said that pes planus was the most probable cause for his unusual gait. There were no other symptoms relating to muscular or nervous dysfunction. In his family history a relevant fact was that his niece, aged 3, had experienced difficulty in walking, and it was stated that she was suffering from hereditary muscular dystrophy. The rest of his family were quite well.

Examination of his nervous system showed that he had marked wasting of both calves and also of the lower third of both thighs, thereby giving the appearance resembling an "inverted champagne bottle" frequently seen in patients suffering from peroneal muscular atrophy. The power of his calf muscles was considerably diminished, more on the left than on the right. On contraction of his quadriceps femoris a well-marked "bunching" of the muscles was seen, a sign which is ascribed to the wasting of the distal end of the muscles. The deep reflexes in his lower limbs were unexpectedly brisk and the limbs were slightly spastic. Both plantar responses, however, were flexor and his abdominal and cremasteric reflexes were normal. His gait was "waddling" in character, resembling the gait seen in bilateral congenital dislocation of the hip-joints, and the paces were shorter than normal. When asked to stand on his feet from the lying (supine) position no Gowers's figures were present. Clinically there was no abnormality in his facial musculature, the sternomastoids, shoulder-girdle musculature, or the muscles of his upper limbs. All his cranial nerves appeared intact. Sensory changes were not discovered in any region of the body, and muscle co-ordination was quite normal. All other systems were normal on examination.

Investigations.—(1) Cerebrospinal fluid: no increase in pressure; quite clear; protein, sugar, and chloride contents were within normal limits: the cells seen were less than 1% lymphocytes; the Lange colloidal gold curve was negative. (2) Urinary studies of creatine showed a 24-hour excretion of 60 mg. (normal value usually nil); urinary creatinine excretion showed a 24-hour value of 1.7 g. (normal 0.4–1.8 g. in 24 hours). (3) Electrical muscle responses:—Rheobase-chronaxie studies showed abnormalities of the following muscles compatible with a diagnosis of myopathy: tibialis posterior and flexor hallucis longus, and to a less extent in the extensor brevis digitorum, extensor hallucis longus, soleus (left only), and peronei longus and brevis; all changes noted were bilateral with the exception of the soleus. (4) Biopsy of muscle tissue taken from the left gastrocnemius showed the changes of muscular dystrophy, by the presence of swollen muscle fibres, increased sarcolemmar nuclei, and marked interstitial fat. (5) X-ray examination of the long bones of the upper and lower limbs showed no rarefaction.

COMMENT

In Gowers's distal myopathy, wasting begins in the legs and is usually followed later by involvement of the hands and forearms. It is still doubtful, however, whether Gowers's original case was in fact one of true distal myopathy; his patient was a youth of 18 who not only had weak anterior

tibial muscles but also had atrophied sternomastoids, paresis of frontalis and orbicularis muscles, and a wasted tongue. It is quite probable, therefore, that that case may have been an unusual type of dystrophia myotonica. The predominance of involvement of the leg muscles in the present case indicates that it is an example of distal myopathy. In view of the electrical abnormalities found in the peronei muscles, and the "inverted champagne bottle" appearance of the lower limbs, the diagnosis of Charcot-Marie-Tooth syndrome was excluded by the absence of any sensory changes and by the normal upper limbs.

An interesting point in the above case was the presence of slight spasticity and hyperreflexia in the lower limbs. In most cases of muscular dystrophy the tendon jerks are reduced or lost *pari passu* with the muscle-wasting. A number of cases have, however, been recorded in which muscular dystrophy was associated with spasticity in Friedreich's ataxia (Bramwell, 1893; Hodge, 1897; Rook and Dana, 1890). There was in this case, however, no evidence of cerebellar ataxia or of any of the commonly found features of Friedreich's disease. Creatinuria is a common finding in muscular dystrophy, and is found even on a creatine-free diet (Boothby, 1932). It is often associated with a diminished urinary excretion of creatinine. These findings have been attributed to the loss of muscle tissue occurring in the disease. This patient's urine showed an increased creatine excretion, but the amount of creatinine present in the urine was within normal limits. Bony changes of rarefaction and increased fragility have been described in muscular dystrophy by Spiller (1905a, 1905b) and Merle and Raulot-Lapointe (1909), but these were not evident in this case.

My grateful thanks are due to Major-General R. Priest for his valuable criticism and advice on this case report.

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Desmoid Tumour Resembling a Pseudo-Pancreatic Cyst in a Male

A man aged 40 was first examined on March 27, 1954, when he was complaining of swelling of the upper abdomen with discomfort and nausea for a month. Two months previously he had been hit in the epigastrium by a small child, but there was no history of major trauma or any surgical scars. The upper abdomen contained a palpable mass which extended down to the umbilicus. This mass was hard and smooth. His general condition was very good. Barium-meal examination showed pressure on the stomach from below and a greatly widened duodenal loop (Fig. 1). Various pathological tests were normal.

On April 2, under general anaesthesia (Dr. T. Lamrock), a biopsy was performed, and the tumour, which was infiltrating the posterior rectus sheath and rectus muscle for at least 15 cm. of its length, was found to be firm, pink, very vascular, and filling the upper half of the abdomen. Macroscopically the tumour resembled an invasive, rapidly growing sarcoma. The microscopical appearances of the sections were similar to those of a desmoid tumour. The tumour had not extended through the anterior rectus sheath, but the overlying subcutaneous tissues contained numerous very dilated veins. There was no increased peritoneal fluid, and, as was to be expected, there was no indication of metastases.

On June 4, under general anaesthesia (Dr. J. Bowen) and through an inverted T incision, the old wound, the tumour, the upper half of each rectus muscle with its sheath, the adjacent peritoneum, and adherent omentum were all removed *en*

bloc. The gap in the abdominal wall (23 cm. long, 5 cm. wide at the upper end, and 13 cm. wide at the lower end) was covered with tantalum gauze. The skin was then closed and the wound drained. Convalescence was uneventful.

The excised tumour (Fig. 2) was encapsulated on its deeper aspect and measured 30 by 24 by 10 cm., with a portion of the rectus sheath and muscles 23 cm. long attached. The tumour had a fairly tough greyish-pink cut surface with coarser fibrous bands in places, and weighed 11 lb. 14 oz. (5.3 kg.). Microscopical examination showed rather vascular loose fibro-cellular tissue. The nuclei were small and uniform and mitoses were difficult to find. The appearances were consistent with a diagnosis of desmoid tumour.

Since then there has been no indication of an incisional hernia or of any recurrence of the tumour.

Fig. 1.—Barium-meal examination showing that the stomach was displaced upwards and that the duodenal loop was considerably widened.

Fig. 2.—Anterior aspect of the tumour showing the adherent strip of skin and rectus muscle. The scale is in inches.