of patients, about 15 in number, the condition improved rapidly, but no deduction of value can be drawn from the fact, as the patients were convalescing. In the second class of patients, some 20 in number, the temperature range became less and the asthenia improved. So far as concerns the third class there was at any rate no increase in pyrexia or gastro-intestinal disturbance.

Lincoln.

CHARCOT'S DISEASE OF THE ANKLE IN A CASE OF GENERAL PARALYSIS OF THE INSANE.

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THE following case of Charcot's disease of the ankle occurring in a man with symptoms of early general paralysis of the insane met with in the practice of one of us seems worthy of being recorded.

The patient, aged 37 years, complained of swelling of the left ankle together with weakness of the foot and some pain on walking. The history of the case showed that the patient had led a dissipated life and until the last six months, during which he had been a teetotaler, he had for years consumed upwards of a pint of spirits a day. At the age of 27 years he had had an attack of gonorrhoea and when he was 32 years of age he had contracted syphilis. A year later there was a sudden onset of cerebral thrombosis which left him partly paralysed on the right side. The paralysis lasted for several months and right-sided movements were still performed awkwardly. For the last three years he had had shooting pains in the shoulders, the shins, and the feet; the pain used to come on suddenly and to last for about half a minute. Six months ago his memory began to fail and for two or three months he had complained of precipitate micturition and occasional incontinence of urine. Three months before coming under observation his left ankle suddenly and without trauma became swollen. At first there was some pain but this soon subsided. The ankle remained swollen and was weak when weight was put upon it.

On examination the patient was found to be a well-nourished, powerfully built man. His mental condition was one of childishness; he was cheerful, readily interested, and on account of his simplicity became the butt of his friends. The speech was slow, awkward, and blurred, but no syllables were missed and there was no aphasia. The special senses were normal, there being no optic atrophy. The eyes moved consensually in all directions with a slight tremor on extreme deviation. The pupils were equal and of normal size; they reacted feebly to light and normally on accommodation. There was no anaesthesia of the face and the muscles of the jaw were normal. In repose the face was rather vacuous and expressionless, but on being addressed his face lighted up. The frontalis and orbicularis muscles acted equally and well; voluntary action of the zygomatic muscles was unequal, being more marked on the left side. When smiling the right side of the mouth always moved before and more strongly than the left. The palate was normal. The tongue was not atrophic; it deviated to the right and its movements were spastic. There was some general slight weakness of the right arm; this was especially marked peripherally in the finer movements of the hand which were all stiff and awkward. The movements of the left arm were imperfect but power was good. The respiratory movements were more marked on the right side both above and below. The abdominal muscles all moved well but were a little spastic. There was considerable rigidity of the legs, rather more marked on the right side than on the left; in the left leg there was slight atrophy of all the muscles below the knee. The muscles of both legs were weak but those of the left leg much more so than those of the right. The muscle sense was very deficient in the left leg but was normal elsewhere. The left ankle-joint was much swollen and the foot was displaced. The malleoli were greatly thickened and the distance between them was increased. The astragalus also showed thickening, as did

the ligaments and the synovial membrane of the ankle-joint. There was slight excess of fluid in the joint. No osteophytes could be felt. The foot as a whole was displaced outwards and the sole was markedly everted. The ankle could not be flexed to a right angle but it allowed of full extension. The foot could be inverted normally and everted to much beyond the normal. Manipulation of the foot caused no pain and there was no tenderness. On passive movement some bony crepitus could be felt. No other joints were affected. The arm-jerks were all brisk, the right being more so than the left. The right abdominal reflex was absent and the left was diminished. The right knee-jerk was much increased; the left was also somewhat increased. There was slight ankle clonus on the right side but none on the left. The left ankle-jerk was present. The right plantar reflex was typically extensor and the left was extensor with sharp response. Micturition was precipitate but there was no incontinence. Defaecation was normal.

As regards the ankle-joint there can be little doubt that it was of the type of arthropathy described by Charcot in certain nervous diseases. The disease affected a single large joint, came on suddenly without signs of acute inflammation and without marked pain, and at the time when the case came under observation there was great structural change in the osseous and ligamentous components of the joint, which was much enlarged and greatly deformed and yet was free from pain and tenderness. The chief point of interest was to determine what was the nervous disease underlying the affection of the ankle. The commonest diseases which are associated with Charcot's disease of the joints are tabes, multiple neuritis, and syringomyelia, but a careful examination of the patient sufficed to exclude the presence of these conditions. Clearly the hemiplegia was not a direct causal factor in the joint change, for the paralysis had been confined to the right side, whilst the affected joint was on the left. The patient gave a history of progressive mental impairment, shooting pains, and precipitate micturition, and on examination there were found Argyll-Robertson pupil and besides the signs of old hemiplegia some evidence of generalised spasticity. These occurring in a patient who has suffered from syphilis suggest a diffuse cerebral degeneration such as characterises general paralysis of the insane.

Birmingham.

FRACTURE OF THE OS PENIS IN OTTERS.

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THE otter (*Lutra vulgaris*), like so many other mammals belonging to the order carnivora, possesses a bone in its penis. This bone (represented of natural size in the accompanying illustration) is situated at the end of the penis and the two divergent terminal knobs are invested with the

Two penile bones from otters. A, The normal bone. B, One that has sustained a fracture and has united soundly.

reflexion of the prepuce which covers the glans; the termination of the urethra emerges in the interspace of what may, for convenience, be called the terminal condyles of the bone. The penile bone of the otter is extremely hard and Mr. Gerald Uthwatt, who is keenly interested in otters and in hunting them, assures me that it is not uncommon to find examples of this bone which have been broken and healed. He further supported his statement by sending me a specimen. It is difficult to account for such a fracture unless one knows the habits of otters. It appears that when these animals fight each tries to seize the penis of its adversary and when we remember what powerful jaws and sharp teeth otters possess