

## NEWCASTLE INFIRMARY.

A CASE OF RUPTURE OF THE BLADDER; FRACTURE OF THE ASTRAGALUS AND OTHER BONES; POLYURIA.

RECOVERY: REMARKS.

(Under the care of Dr. ARMSTRONG.)

WE are indebted to Mr. Frederic P. Maynard, M.B., house-surgeon, for the notes of the following case:—

Ellen D—, aged sixteen, a big, strong, stout girl, was admitted on Sept. 24th, 1886, having fallen forty feet from a window, her fall being broken by alighting on a man who was passing at the time. She was much collapsed, but soon rallied, and she was found to have sustained the following injuries when she was examined under chloroform:—Large hæmatoma of left cheek and orbit, right pupil dilated, left contracted, both reacting to light. Spinous process of twelfth dorsal vertebra fractured. Skin of arms grazed; no fractures. Right thigh and leg uninjured; os calcis fractured in two places, one transversely just in front of the epiphysis, which was drawn upwards by the gastrocnemii; and the other transversely further forwards. The astragalus was broken across its neck. Crepitus and mobility were easily obtainable between all these fractures, especially as the patient was under chloroform. The foot was pointed and swollen, the ankle appearing broader than natural. External malleolus of the left leg was broken and comminuted. The os calcis could be felt entire; astragalus broken across neck, where crepitus could easily be felt on flexing and extending the foot. The arch of the foot was flattened, and the foot lay with the toes pointed and everted. The abdomen was tender all over, especially above the pubes. No tympanites. There was a hæmatoma over the sacrum, and the whole perineum and both buttocks were black from bruising, but no wounds anywhere. Blood escaping from vagina. (Was regular, and menstruated one week ago; passed urine just before falling.)

A catheter was passed into the bladder, and two ounces and a half of dark bloody urine drawn off. The bladder was washed out with a warm solution of Condy's fluid. On passing a duck-billed speculum, there was found to be an irregular rent in the anterior wall of the vagina, four inches long, running obliquely upwards from right to left, and reaching below to within three-quarters of an inch of the meatus and above to the posterior fornix. The finger was passed through it into the bladder, but no other wound could be felt. The anal sphincter was relaxed; there was no wound of the rectum, which was full of fæces. Coccyx uninjured. The vagina and bladder were washed out with perchloride of mercury solution (1 in 2000), and Mr. Maynard proceeded to sew up the wound in the bladder. At its upper end a  $\Lambda$ -shaped piece of mucous membrane was removed, to make the sides meet better, and twelve deep sutures altogether of silkworm-gut were introduced from above downwards by means of a curved needle set at right angles to the handle shaft. After again syringing, a plug of iodoform wool was placed in the vagina, and the bladder drained by means of a gum-elastic catheter tied in. At first the urine was bloody, but clear the next day. It contained traces of albumen until Oct. 1st, when it became normal. The legs were put up in splints.

Sept. 26th.—Temperature 101.8°; pulse 144. Has passed five pints five ounces of urine in the last twenty-four hours by catheter; it contains albumen, but no sugar.

27th.—Temperature and pulse still high; urine normal in quantity.

28th.—Temperature 102.4°; urine five pints six ounces; no sugar; tampon withdrawn and vagina examined; wound healing; edges rather everted between sutures, and ragged; upper portion of vaginal mucosa superficially sloughing.

Briefly, the temperature kept up until Oct. 5th, when all sloughs had come away (injections of Condy's fluid had been used frequently), and the urine became normal, and subnormal in quantity. On the 19th the last suture was removed, and the bladder found firmly united, no urine ever having passed through it. The splints were left off the legs, and some movement was obtainable in both feet. On the 25th the girl was in every way well, the feet improving in movement daily, and micturition and urine being normal.

*Remarks.*—This appears to be a case—very rare—of rupture of the bladder, when empty, from indirect violence. The momentum of the heavy uterus (she was a big girl, and the uterus was also large) when her fall was broken

by the man she alighted upon, would force it down upon the perineum, and probably ruptured the vesico-vaginal septum, and by the stretching of its ligaments caused the great abdominal pain and tenderness. There were no signs of any instrument, sharp or blunt, having wounded the vagina, though there certainly was general bruising of the nates and perineum. The polyuria was of interest, inasmuch as there was no glycosuria. There was a blow over the left orbit and cheek, which may be supposed to have caused some cerebral mischief. The fracture of the astragalus alone in the left foot is a very rare condition. Monahan records ten cases, and Erichsen refers to two in his own experience, though one of his was accompanied by a most peculiar deformity, and there was no injury to the malleolar arch.

## Medical Societies.

### ROYAL MEDICAL & CHIRURGICAL SOCIETY.

#### *Disseminated Myelitis and Measles.—Acute Tubercular Ulceration of the Larynx.*

AN ordinary meeting of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair.

Dr. THOMAS BARLOW read a paper on a case of early Disseminated Myelitis occurring in the Exanthem stage of Measles, and fatal on the eleventh day of that disease. The patient, a policeman, aged twenty-three, was admitted at the London Fever Hospital on June 11th, 1885, suffering from measles—the second day of the rash. There was nothing special about his case, except that he complained of soreness down the breast-bone and at the epigastrium. At midnight on the 13th there was retention of urine. On the 14th he was drowsy, but intelligent when roused. There was paralysis of the lower limbs, with loss of knee-jerk and of plantar reflex; but the patient was able to localise a pinch on either leg. The grasp of both hands was weak. There was still retention of urine. On the 15th the patient's mental state was quite clear, but in every other respect he was worse. He could only speak in a whisper; his cough was ineffectual. He complained, as on admission, of fixed pain down the breast-bone and at the epigastrium. The paralysis of the lower limbs, absence of knee-jerk and retention of urine continued; the weakness of grasp in the hands was more marked, and the intercostals were paralysed. There was slight deviation of the tongue to the left. The patient gradually became cyanosed, and died on the evening of the 15th, which was the eleventh day from the onset of measles. The post-mortem examination, beyond consolidation of the lower lobe of the left lung and intense congestion, with ecchymoses of the tracheal and bronchial mucous membranes, showed no important visceral changes. In the brain the grey matter of the convolutions was darker than natural, and the brain substance unduly soft. The ependyma of the lateral ventricles was easily detached. The spinal cord showed extensive softening in the upper dorsal region. Opposite the fifth dorsal vertebra the cord was quite diffuent. There was also red softening in the lumbar region, most marked in the grey cornua, which at some spots were quite tunnelled. Microscopic examination of the cord, made by Dr. Penrose, showed that the changes were mostly vascular, consisting of great engorgement of vessels, infiltration of surrounding tissues with leucocytes, and slight interstitial extravasation of blood. No changes were found in the nerve-cells, fibres, or supporting tissues of the cord. In the medulla oblongata very similar changes to those present in the cord were found, with the exception that no hæmorrhages had occurred. The stress seemed to have fallen chiefly on the hypoglossal and vagus nuclei. The case was recorded because (1) accounts of the post-mortem appearances in fatal measles with nervous complication were very rare; (2) because it had considerable resemblance to a fatal case of disseminated myelitis after small-pox recorded by Westphal; (3) because it possibly threw some light on the changes which give rise to certain groups of cerebro-spinal symptoms left after some of the fevers, especially those allied to multiple sclerosis to which Westphal first drew attention.—Dr. CHEADLE referred to a case of cerebro-spinal meningitis following measles almost as closely as that of Dr. Barlow's. The measles began on