

and three weeks or a month afterwards—the pain meanwhile increasing in intensity—the skin gave way in two places, one near the zygoma, the other below the ear, which discharged for three weeks, and then healed. Subsequently two fragments of necrosed bone separated and came away by the openings in the mouth, and soon afterwards fresh sinuses formed externally.

On admission there were four discharging openings; one in the mouth, one beneath the ear, and two beneath the chin. He had a good deal of pain, and mastication became impracticable soon after his admission. On examination with a probe, exposed bone could be felt through all the sinuses; the movements of the articulation were not impeded; most of the front teeth still retained their position, though loosened in their sockets.

On Nov. 21st the symphysis of the lower jaw was exposed by a long transverse incision, which was joined by a short vertical one in the centre. The dead bone was then seized with a strong pair of forceps, and removed entire. It included the greater part of the symphysis, and a portion of each horizontal ramus, extending above the mental foramina, but excluding the alveolar plates and processes. There was no attempt at the development of new bone around the necrosed fragment. The sinus in the cheek was then enlarged, and a piece of dead bone removed from the vertical ramus, near the base of the coronoid process. The wounds on the chin were brought together with wire suture, and healed kindly. Another fragment of bone was removed when it presented itself at the smaller wound.

He left the hospital on Dec. 21st, well in health; with the outline of the jaw preserved, the front teeth loose but not altogether unserviceable, and with a very slight discharge from the sinus in the cheek. The lower lip had lost its sensibility in great measure, but its movements were unimpaired.

Mr. Le Gros Clark remarked that there was no assignable reason for the otitis which preceded the death of the bone in this case: probably it was cold. The large sequestrum was not enclosed in new bone; indeed, there seemed to be but little if any reparative effort in this direction. The diagnosis of the case was simple, and the treatment clearly indicated; though the extent or limit of the necrosis was not ascertained before the operation. The inner wall of the jaw retained its vitality, and thus the outline of the bone was not destroyed, and the teeth, though loosened, remained in position.

CARIES OF ATLAS AND AXIS.

(Under the care of Mr. LE GROS CLARK.)

D. D—, aged forty-five, a warehouseman, was admitted on April 8th, 1864, having been for some time an out-patient. Sixteen months ago he was knocked down by a horse, and fell on his head, which was cut, and his back was bruised. He was stunned for a time, but soon returned to his work, though unable to rotate his head for two days. Five months afterwards his health began to fail, and prominence of the spine, with pain in the dorsal region, followed. He was unable also to rotate his head, except to a limited extent. This last symptom was intermittent—that is, he described the movement to be entirely suspended for a time; then the bones would suddenly slip into their places, and free movement be restored. The apparent slipping out of position was as sudden. The intervals during which he enjoyed free movement extended to some weeks usually. When admitted he could walk, and the sensibility of the lower part of the trunk and extremities and command of the bladder were natural. The head was fixed; the axis was very prominent, and the atlas seemed to have slipped forward; lower dorsal spines prominent and tender. A few days after his admission he was seized with sudden dyspnoea and paralysis, and soon expired.

Autopsy.—There was caries in the dorsal region of the spine. The odontoid process of the axis was seen close to the posterior margin of the foramen magnum, its surface being carious and denuded of ligaments; the transverse ligament of the atlas had also disappeared. The upper extremity of the spinal cord appeared quite crushed and pulpy; and the lower portion of the medulla oblongata was also soft. The brain and membranes were healthy; but much cheesy tubercular matter was found in the dorsal part of the vertebral canal, in front of the dura mater.

This long-standing disease, Mr. Le Gros Clark observed, terminated by mechanical compression of the spinal cord, the symptoms preceding death being similar to those which accompany progressive disorganization of the same part after fracture of the spine accompanied by pressure of the cord. The entire destruction of the ligaments holding these vertebræ and the occiput in their several relations, leaves it a matter of doubt

which was the last to yield. Probably the partial destruction of the transverse ligament, whilst the moderators remained entire, may account for the apparent dislocation of the atlas from the axis. In that case the moderator ligaments must have subsequently yielded to ulceration, until the loss of all ligamentous support determined the fatal issue. There was no effort at repair by ankylosis.

ROYAL LONDON OPHTHALMIC HOSPITAL.

FOUR CASES OF THE REMOVAL OF EYES WHICH HAD BEEN PREVIOUSLY LOST BY ACCIDENT OR DISEASE, AND WHICH BY THEIR PRESENCE WERE ACTING INJURIOUSLY ON THE PATIENT; WITH REMARKS.

(Under the care of Mr. GEO. LAWSON.)

CASE 1.—W. B—, aged sixty-three, applied to the hospital on account of a painful shrivelled stump of the left eye. He had been operated on elsewhere two years ago for cataract, apparently by the ordinary upper section, when, from his own account, his excessive spasm and straining caused an expulsion of nearly all the contents of the globe at the time of the operation. A small shrivelled-up stump was the ultimate result, at times excessively painful, and frequently becoming inflamed. He was admitted into the hospital on January 5th, 1864, when Mr. Lawson removed the remains of the left eye. He was discharged in a week, free from all pain. He occasionally shows himself at the hospital, wearing an artificial eye.

CASE 2.—Wm. S—, aged forty-nine; a boiler-maker; works at Millwall. Eight or nine months ago, whilst chipping a cold rivet, a fragment flew off and struck the left eye. The piece of metal stuck in the eye, after making a large wound, extending obliquely across the cornea into the ciliary region, and was drawn out by the patient. He was taken to the London Hospital, where he was carefully treated, but the eye as an organ of vision was lost. He applied to the Moorfields Ophthalmic Hospital on account of the continued pain which he suffered in the now somewhat shrunken globe. The pain was in the upper part of the eye, near the junction of the cornea with the sclerotic, in the immediate site of one extremity of the wound. He was willing to part with the globe, or to submit to any treatment which afforded him a chance of relief. On Feb. 19th he was admitted into the hospital for the purpose of having the lost eye excised. This Mr. Lawson did, and the man speedily made a satisfactory recovery. He left the hospital on Feb. 23rd, free from all pain.

CASE 3.—W. E— applied at the hospital on the 15th of January last, on account of the stump of the right eye (which he had lost from an accident forty-five years ago) having become inflamed. From the time of the accident up to six weeks previous to admission he had never suffered any inconvenience from it. It then, without any apparent cause, became inflamed, and ever since he had had continued pain in it. The left eye was irritable and congested, and he complained of dizziness and inability to define clearly surrounding objects. He was admitted into the hospital, and Mr. Lawson removed what remained of the right eye. On making a vertical section of the eye, the choroid was seen in apposition with the sclerotic, but the retina was bulged forward, and the space between it and the choroid occupied by a thick bony plate. All annoyance in the left eye ceased after the operation, and in four days the man left the hospital convalescent.

CASE 4.—S. H—, aged twenty-five, came to the hospital in Dec., 1862, to seek advice concerning the right eye, the sight of which he had lost nearly twenty years previously. The cornea was nebulous. A portion of iris had evidently been removed for the purpose of making an artificial pupil, and some opaque capsule occupied the irregular pupillary space. The eye was soft, and, as an organ of vision, useless. It was liable to attacks of inflammation, which gave him considerable annoyance. As the eye was then quiet, there was no need for any active interference. The patient was strongly advised, if it again became troublesome, to come at once to the hospital and have it removed, as it was very possible it might act injuriously on the sound eye.

On July 11th, 1863, he again came to the hospital on account of the bad eye being inflamed and painful. Its removal was urged, but in vain. He was treated with belladonna fomentations and tonics, and all active mischief for the time ceased. His great objection to having the eye removed was, that as he