CASE OF ENCEPHALOCELE.

ARTICLE V.—Account of a Child with Encephalocele, and Extrophy of the Urinary Bladder. By David J. Taylor, Esq., Surgeon, Lockerby.

(Communicated by Professor Simpson.)

On the 21st of April last, Mrs M. was taken in labour with her second child, and in two hours gave birth to a female infant of rather less than ordinary size, though at the full period.

During labour, a soft, round body presented, which for a while was mistaken for the head, but was ultimately found to be a tumour, rather larger than an ordinary-sized foetal head, attached, a little under the site of the posterior fontanelle, by a pedicle of three-fourths of an inch in length by an inch in diameter. The tumour itself was round, soft, and flabby, resembling somewhat a fresh bladder two-thirds full of water, and varying in shape with every change of the child’s position. Covered by the common integument, it presented a perfectly smooth and equable surface, except at the part opposite the pedicle, where it resembled a puckered ring, surrounding a small nodule of cartilaginous appearance, from which diverged three whitish lines, resembling in their course the sagittal and lambdoidal sutures diverging from the apex of the occipital bone. At every other part it appeared very vascular, giving it a deep nævus-like colour. Such were the appearances the tumour presented to the eye, but when handled it felt less uniform, having at many points an irregularly hypertrophied feel. When percussed, it gave a distinct feeling of fluctuation; and on pinching up its thick and flabby outer covering, another of a firmer and tenser structure could plainly be felt and traced to about the middle of the pedicle, where it seemed to terminate; at least no fluctuation could be detected in the cranial half of the pedicle, while in the part beyond this, it was sufficiently evident without applying pressure to the tumour.

By compressing the tumour firmly on each side, something of a spongy or fleshy structure was distinctly felt as if floating loosely in its interior.

At birth, and on the second day after, pulsation, it was fancied, could be detected by grasping it firmly, but on the fourth day, and subsequently, several surgeons satisfied themselves that none existed. The cranial bones were perfect, in as far as manipulation could inform us; the sutures close; the anterior fontanelle scarcely distinguishable; the forehead rather low and abruptly recedent, but more so in appearance than in reality, the head being tightly pulled back, so much so that the occiput rested between the shoulders; nor could it be raised from VCL. FOR 1842, NO. XII. 6 Y
this position, which gave the appearance of total want of cervical vertebrae, an impression scarcely corrected by the anterior view of the neck, but by pressing laterally, their presence and extreme curvature was discovered.

Evacuations of meconium and urine took place at the usual time, and feces, &c., continued to be regularly discharged; indeed, the child's general health continued uninterruptedly good during the whole of the first month, though for the first eight days it subsisted entirely on spoon meat, refusing its mother's breast, although she had abundance of milk, which other infants sucked willingly. On the ninth day, on being applied to the breast of a nurse, it sucked her greedily, and afterwards its mother, up to May 24th. The tumour had now doubled in size; the sac became more tense and vascular; the outer coat, which formerly moved freely on the inner, seemed now firmly connected to the latter; and the substance formerly felt lying in its interior could no longer be felt. During the whole of May 24th the child cried incessantly, refusing all food, and on the morning of the 25th was seized with convulsions, still crying incessantly between the fits. On the 26th it became comatose, convulsive stertors occasionally recurring. It now again refused the breast, but swallowed panaido when it was put into its mouth, the secretions and evacuations continuing natural.

The bones of the head began to separate. On the 29th, the parietal bones were half an inch apart; the anterior foramen the size of a halfpenny; and now also I discovered the posterior fontanelle an inch above the neck of the tumour, about as large as a sixpence. The tumour kept rapidly enlarging; and when the sutures, on June 6, had again closed, it had become a third larger since May 24. Craving for food great; evacuations, &c. natural; coma continuing; constant twitching of all the voluntary muscles; mouth drawn slightly to left side; countenance varying from paleness to lividity; pupils immoveably dilated before the strongest light; the body little larger than at birth.

She remained without any appreciable change, except the gradual enlargement of the tumour, whose diameter increased at the rate of about an inch per week, till on the night of the 16th August, when the integuments gave way, and a small quantity of fluid oozed out. At two a.m., on the 17th, she expired.

Autopsy.—In appearance the tumour felt full and tense; was of a deep purple colour; desquamation had commenced at several parts; over its entire surface it was dry and scurvy; an oozing of serum still continued from an ecchymosed spot on its lower surface, though no distinct opening was visible.

On puncturing it, three pounds of brownish fluid escaped; and on slitting up the sac, it was found lined with the dura mater and arachnoid membrane; the fluid having been contained be-
between the layers of the latter. The former was found very little altered; but the latter was greatly and irregularly thickened, here and there, by depositions of lymph, giving it in several places an elastic, or rather, gelatinous appearance.

In the centre of the tumour, and through the pedicle, projected a hernia cerebri, of the size of a duck's egg; resembling an egg also in shape, and covered by the arachnoid and pia mater; of normal appearance, except on the lower surface, where, by depositions of lymph, a soft elastic membrane, of about an inch and a half in breadth, connected it throughout its whole extent, with the arachnoidea reflexa lining the sac. On making an incision into the hernia, an ounce of serum escaped, resembling in colour that surrounding the protrusion, leaving a pouch, with walls of about half an inch in thickness. When the neck of the sac had been dissected off, the protrusion was seen to have taken place through a hole in the occipital bone, of three quarters of an inch in diameter, situated about an inch below the apex of the bone in the median line. On removing the protruded portion of brain, it was found to weigh about two ounces. The edges of the aperture were thin, and serrated; the inner table and diploë wanting for half an inch round its margin. About midway between the apex of the bone and the foramen just described, existed another, of about half the size of the former. Through this no protrusion had taken place, and the dura mater could be felt tightly stretched across its inner aspect; its edges also were serrated.

A suture stretched from the edge of the larger aperture to the foramen magnum. The spinous processes and arches of the cervical vertebrae were wanting, and serum was contained within the membranes; the dorsal and lumbar vertebrae were perfect, as were all the cranial bones, except the occipital.

I regret that I cannot give the appearances within the skull, as the child's father, who was present during the inspection, would on no account allow the head to be opened. I can only state, that it was the opinion of myself, and two other surgeons who were present, that no water was contained between the bones and the surface of the brain; that fluid was contained within the ventricles, a few tea-spoonfuls escaping through an aperture of the size of a crow-quill, in the centre of the portion of incised brain, which filled up the opening through which the hernia took place.

The same child was also the subject of a malformation of the genito-urinary organs. The pyramidal muscles, integuments of the pubal bones, anterior wall of the bladder, nymphae, upper half of the labia pudendi, and the urethra, were wanting. During life, the urine was seen passing guttatim from the mouths of the ureters. The vagina was perfect.