

III.

Case of Hydrocephalus. By R. HOOD, Surgeon, Ayton,
Berwickshire.

IN September last, being requested to visit Mr D——'s son, aged three weeks, I found him screaming violently, affected with febrile symptoms, and squinting. The application of the usual remedies did not alleviate his trouble; and, after the lapse of eight or ten days, his head appeared to be softer and larger than usual. The febrile symptoms and squinting gradually left him; but his head continued to increase in size. Diuretics were tried without benefit; and an attempt to repress the swelling by bandaging the head, brought on fits, which, however, left him on removing it; and his body now, from being very emaciated, gained flesh; he even appeared to be in tolerable health. In this state he continued several months; and, by the end of March, the bregma was found to be very large, reaching to the temporal bones at the sides, and superciliary ridges in front, in which space fluctuation was very perceptible. Conceiving that the child might be benefited by having the water removed, and no peculiar symptoms indicating any quantity of water to be lodged in the ventricles or within the brain, nor that viscus to be particularly diseased, tapping was proposed to the mother; at the same time explaining the extreme delicacy of the operation, and the dubious issue, should more water be found lodged within the brain, after that on the surface was drawn off. She consented to have it done, as the only means left of saving the child. Accordingly, on Monday the 9th of April, a puncture was made into the left side of the bregma with a small trocar, by which about ζ vi. of a limpid fluid run out. I stopped the flow two different times, for a short space; and the sides of the head were supported by Mr Landell, surgeon. The child cried during the operation; but no fainting or convulsions ensued. The head was next bandaged, after the manner represented in Heister's plates, for water of the head; and the mother directed to hold him, for some time, in the horizontal posture. The fluid was found to contain minute quantities of sulphuric and phosphoric acids, with a greater proportion of muriatic, all neutralized; likewise minute portions of lime and magnesia, with mucus and gelatine in abundance.

Tuesday 10th.—Vomited a short while after the operation

yesterday; started at times through the night; slept little; sucked as usual; pulse and heat natural; much wet has come from the wound, and continues to exude. Had a cathartic on Monday, which has operated. Head measures one and a half inch less than before the operation, when its circumference was $21\frac{1}{2}$ inches.

Wednesday morning, 11th.—Has passed the night as well as ever he did in his life. Much wetness from wound.

10 o'clock, P. M.—Has taken a violent screaming. Pulse quick. Ordered to be bathed, grs. ii. ss. of calomel to be given, and the bandage to be removed.

3, P. M.—No better; ordered to be leeches.

Thursday, 12th.—Has passed a restless night. Pulse very quick; takes fits; pupils dilated. Medicine operated; ordered a blister to be applied to the nape of the neck.

2, P. M.—Blister has risen. He is seldom out of a fit; constant rolling of his eyes, but in unison. Pulse very quick, with irregular and convulsed breathing. Died at 9 o'clock at night.

Dissection.—The bones of the head were very soft, and readily cut with a knife. There were no traces of inflammation in the dura or pia mater, not even at the puncture, which had only pierced the former, and was still open. The surface of the brain appeared like a soft jelly swimming in water, and, when its proper tunics were cut, dropt over the sides of the head. A portion of the left hemisphere being swept away rather than cut, a transparent sac was discovered occupying the situation of the lateral ventricle, but including the anterior and posterior cornua only, the inferior containing another distinct sac of a similar fluid. The right hemisphere contained another sac that, when cut into, threw out a large quantity of a clear fluid, and was contained within the lateral ventricle of that side, communicating by large openings, through which the finger readily passed into the third and fourth. No water was found in the fissure of the septum lucidum, which was of a firmer consistence, as were most of the central parts of the brain. The testes and testes were converted into a hard tumour, which contained about a tea-spoonful of pus, not confined in any well defined sac, and apparently the product of recent inflammation. This I suspect to have been the cause of the child's death. The inferior parts of the cerebrum, and likewise the cerebellum, approached nearly to a healthy state. About a pound and a half of fluid was collected, and the sacs in which it was contained were of a smooth, firm, and tough structure; attached to the

cerebral mass at their under, but unconnected at their upper, surface.

By the operation, the water situated between the brain and dura mater only was drawn off; and it is evident, from the various sacs, how difficult it would have been to have punctured the whole, especially as neither their size, situation, nor even existence, could be accurately known previous to dissection. I have had several opportunities of examining the disease in sheep, known by the name of Sturdy, and find it very much resembles hydrocephalus in the human species. In one, where the water was drawn off by a trocar (the bone is rendered so thin immediately over the water as to be readily pierced), the sheep died in a few days; and when the brain was examined, it was discovered that the point of the trocar had injured the brain, and brought on inflammation of its meninges. In this, as well as some others which I examined after death, water was always found within the brain, and sometimes in sacs, forming indentations deep into its substance. Sufficient water may be on the surface of the brain to cause perceptible fluctuation, yet not enough to receive the point of the trocar beyond the canula; and the consequence is, the meninges of the brain, or the brain itself is injured; a circumstance which is certainly always to be avoided if possible. I should apprehend that the safest method is to make use of the scalpel, as in trepanning, and puncture the dura mater cautiously with a lancet, by which the water will be safely evacuated. Neither faintings nor convulsions have occurred at all in the recent cases, nor are they much to be dreaded, and may always be avoided by a proper degree of pressure: And the admission of air does not seem, from Mr Lizars's case, to be of any consequence. When water is lodged within the brain to any extent, (a fatal circumstance which I am afraid attends most cases of this disease), I consider the case as nearly hopeless; conceiving that, however much the upper portion of the brain may be meddled with now and then, injury done to the central parts produces terrible effects, if we may reason from the analogy of inflammatory attacks. The necessary collapse and distention of the sacs, should even the puncturing instrument avoid every vital part, would run mighty hazard of producing inflammation. In this case, we see almost the whole of the upper part of the brain disorganized, and a large collection within the viscus itself; but this had accumulated gradually, and its upper roof had as gradually yielded, so that circumstances remained much as they were; but no sooner do the corpora quadrigemina become affected, than the consequence is fatal to the child. Nutrition, assimi-

lation and perception, were carried on and excited with a lb. i ss. of fluid in the ventricles, over and above what was upon the surface; but most of the central parts were entire, until the tubercula quadrigemina was attacked, when death followed.

I have been induced to forward the above case for insertion in your valuable pages, chiefly with a view to the accumulation of facts necessary to the obtainment of the requisite knowledge of a disease hitherto so fatal.

IV.

Case of Transposition of the Abdominal Viscera, usually denominated Monstrosity, observed in a Child six weeks old. By WILLIAM CAMPBELL, M. D., Fellow of the Royal College of Surgeons, Edinburgh, and Lecturer on Midwifery, &c.

DEAR SIR,—Should you deem the following account of this case of transposition of the abdominal viscera, with a drawing of the relative situation of the parts, worthy of a place in your valuable Journal, I shall feel much obliged by your inserting them. I am the more anxious that the case should be published, not only on account of the unusual appearances met with in dissection, but also from the length of time which the child continued to live under such circumstances.* My friend,

* The occurrence of this case, as well as the probability of the child continuing to live under such unusual circumstances, having been called in question by some of the Profession in this city, I beg leave to cite the following cases to show, that similar examples have been repeatedly met with by others.

In the 22d Vol. Philosophical Transactions, a case is related by Sir Charles Holt, for the year 1701, which resembles the present in every particular, except that the infant lived for two months, and enjoyed the functions of both lungs. It always breathed with much difficulty, however; and when the hand was applied to the left side of the thorax, a creeping sensation or motion could be distinctly felt underneath, which was thought to be occasioned by the vermicular action of the intestines. In the 2d Volume of Dr Fothergill's Works, a similar case is detailed; but the change in the situation of the viscera was by no means so considerable. The child, which was a female, lived for ten months. There is a remarkable case of transposition of the thoracic and abdominal viscera related in the Philosophical Transactions for the year 1788, by Mathew Baillie, M. D. The subject of the case was a male, near 40 years of age, "brought for dissection, in the common way, to Windmill-street." In this case, the right lung was divided into two lobes only, while the left lung was divided into three lobes. On opening the pericardium, the