A CASE
OF
MALFORMATION OF THE HEAD,
CONSTITUTING
WHAT IS COMMONLY CALLED AN ACEPHALOUS FÆTUS.

BY
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THE malformation, which forms the subject of the following case, is not of very rare occurrence. The subjects of it generally live too short a time for observation, and accurate dissections have been seldom made. But in this case, life was protracted beyond the usual period, and the parents of the child offered no objection to a complete investigation of the disease.

On the 31st of August, 1809, I was called to a case of midwifery in Duke-street, Spitalfields, it being a lady's second child. On examination I found the face of the child was turned towards

the os sacrum ; and on feeling for the forehead, instead of the usual projection of bone, a soft spongy substance was found projecting over the eyes.

When I touched this substance with my finger, the mother described that she perceived most violent motion of the child, which, she said, felt "*as if it would break through her,*" and I prepared two ladies who were present, for some unnatural production, and begged them to convey the child, as soon as it was born, into an adjoining room from the view of the mother.

The face soon descended into the pelvis, but I avoided examination as much as possible during the pains, on account of the violent motion which touching the tumour excited. The labour pains, though strong, were more numerous than the size of the projecting part would have induced me to expect ; but this circumstance was afterwards accounted for by the magnitude of the body of the child which was born after I had been with my patient a little more than an hour.

The head of the child appeared very remarkably deformed ; the whole of the forehead, summit, and a great part of the occiput were deficient, and in lieu of them, a substance projected of a light mulberry colour, and of the mushroom

form, excepting that its neck was proportionably broader. From the deficiency of bone, the eyes appeared to project much more than usual; the body of the child had its usual colour, and in every other respect it was naturally formed.

The child lived six days without either taking sustenance or having any evacuation. Attempts were frequently made to give it food; but when the smallest quantity entered its throat, it excited convulsions and immediate regurgitation.

The infant was a female, and a probe was passed both by the meatus urinarius and rectum, to ascertain whether there was any impediment to the natural 'evacuations. A very small quantity of fluid passed from the bladder, but nothing from the rectum.

No diminution of size could be observed during its life, for it seemed on the morning of the 6th day to be as large and as likely to live as on the day of its birth, and it died of a convulsive fit on the evening of the 6th day.

Respiration went on naturally; it did not cry, but frequently made a hideous whining noise.

The pulse did not appear to differ from that of

other children, but the heart could be seen to beat violently on the left side, immediately after it had been thrown into convulsions.

If left without disturbance, it exhibited no sign of convulsions, but the least motion immediately excited them. No signs of voluntary motions appeared, and the mother had less feeling of the child in utero, than in her former pregnancy. But the most curious circumstance observed in this child was, that at the moment the projection at the summit of the head was touched, a general and violent convulsion was produced, as if it had received the strongest electric shock. Its arms were first drawn up and then extended, and its hands were turned into a state of pronation; its legs were stretched to the utmost degree of extension; its head was drawn back, and its body extended.

Sir Wm. Blizard and Mr. A. Cooper were so kind as to visit the child with me, and one of these gentlemen applied a piece of silver to one part of the projection, and a piece of silver to another, and produced a communication between these by means of a silver probe, but without exciting any galvanic contraction.

The following were the appearances on dissection :—

The scalp, the os frontis, the parietal, and

a great part of the occipital bones were wanting.

Through the parts at which these bones were deficient, the cerebrum projected; and this portion of the brain exhibited the usual convolutions of that substance. It was covered by the pia mater; it was of a mulberry colour; appeared to be more vascular than the pia mater usually is, and the edge of the scalp was united with the neck of the tumour.

The cerebellum was not more than one-fourth of its usual size, for the posterior part of the os occipitis had advanced towards the Sella Turcica, so as to form a cavity for the cerebellum, into a canal about twice the size of that which is destined for the spinal marrow.

The child in every other respect was perfectly formed.

This altered situation of the brain had so far injured its powers as to deprive the child of all voluntary motion; for it did not seem capable, under any irritation that could be applied to its extremities, of having any action excited in its voluntary muscles. But the most curious circumstance in the physiology of this child was, that its secretions were entirely stopped, and it had therefore neither alvine nor urinary excretion.

A circumstance which will serve to support the idea lately broached by physiologists and chemists, that the secretions depend upon an influence which is derived from the brain and nervous system.