AN ACCOUNT
OF A
FŒTUS OF SEVEN MONTHS,

WITH ITS
PLACENTA PARTIALLY ADHERENT TO A NÆVUS OCCUPYING THE
SCALP AND DURA MATER.

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READ FEBRUARY 12TH, 1839.

THE following letter, which I received on the 23rd August 1838 from my late pupil Mr. William Highmore, explains the object of the present communication :—

“ Sherborne, Dorsetshire, August 21, 1838.

“ My dear Sir,

“ I have the greatest pleasure in sending you a curiously malformed foetus, which was expelled from a lady in the seventh month of gestation, in my uncle's practice, yesterday. My uncle was sent for ; but, being from home, and the case being urgent,

another practitioner was called in : who, on his arrival, found the head of the child born ; the body and placenta were then expelled together, I suppose ; and the funis was divided before it was discovered that it was adherent to the forehead. When my uncle arrived, he found the labour over, and the lady comfortable ; the gentleman who attended her being still with her. On examining the child, which appears to have died during the delivery, he discovered that the funis, which was very short, was firmly adherent to the forehead, the skin of which is very vascular, and the other malformations of the face and hands, which you will see. The head was not examined, in order to give you an opportunity of doing with it as you think proper. I am sorry it is not in my power to give you the history of the case now, but will procure it for you before I leave the country. Mrs. —, it appears, was frightened, about the period of quickening, by a cat leaping on her head as she was stooping down to tie her shoe.

“ Believe me, my dear Sir,

“ Yours very truly,

“ WILLIAM HIGHMORE.

“ To Robert Lee, Esq., M.D.,
14, Golden Square, London.”

The foetus and placenta, having been enclosed in a bladder half filled with water, arrived without injury, and before decomposition had commenced. They were placed in a vessel filled with water, while

Mr. Joseph Perry was engaged in making the drawing presented to the Society. A pipe was then introduced into the umbilical vein of the divided extremity of the cord connected with the placenta, and all its veins and arteries were minutely injected. The arteries and veins of the foetus were then filled with injection from the extremity of the umbilical vein connected with the navel. The integuments of the head were then divided from ear to ear, and the dura mater was found in immediate contact with these, and all the bones of the upper part of the head were wanting. The scalp and dura mater on the upper part of the head were almost wholly occupied with a great plexus of dilated arteries and veins, filled with injection, and presented the appearances usually observed in cases of *nævus*, spread over a considerable portion of the surface of the body. The arachnoid and pia mater had nothing unusual in their appearance, and the brain was perfectly healthy.

Being anxious to determine the exact structure of the band uniting the placenta and forehead, near the root of the nose, and to ascertain whether any connection, by blood-vessels, existed between them, I availed myself of the kindness of Sir Astley Cooper to examine the parts carefully along with him. We found this band about three quarters of an inch in breadth, and an inch and a half in length, composed of the amnion and chorion, which passed off from the placenta, near the entrance of the umbilical cord, and were firmly inserted into the integuments of the forehead, as the amnion and chorion, which

form the sheath of the umbilical cord, are usually united to the integuments around the navel of the child.

We also found an opening sufficiently large to admit the point of a finger, through the integuments of the forehead, where they were united to the amnion and chorion; and, through this opening, the dura and pia mater protruded, and were lodged in the centre of the band, forming at the part a hernia cerebri, of which the band, extending between the placenta and forehead, was the only covering.

We could not discover any arteries or veins, either empty or filled with injection, running in the cellular membrane of this band, and therefore concluded that no vascular communication existed between the placenta and foetus at this part.

Near the root of the nose there was an irregular shaped opening on the left side, and both eyes were wanting.

There were only three fingers and a thumb on the right hand, and the fore and ring fingers of the left hand were imperfectly formed.

All the thoracic and abdominal viscera were healthy.

The umbilical cord measured about six inches.

That the adhesion of the placenta to the head of the foetus, in this case, was not accidental, nor the consequence of inflammation, must be obvious to all; but at what stage of the development of the embryo it took place, and by what process it was effected, it will perhaps be impossible to determine,

until a more perfect knowledge of the origin of the amnion is obtained. The umbilical cord and band must have been formed at the same time, when the embryo and amnion were in immediate contact, and probably before the end of the third week after conception.

Paul Portal has described and figured a malformed foetus, between the integuments of whose forehead and the placenta there passed a long slender band, formed of the amnion and chorion ; the eyes of the foetus were closed and deformed ; the feet clubbed ; the ring-finger of the right hand was wanting, and the left arm lame and incapable of extension. Portal has offered no explanation of the manner in which this adhesion between the placenta and foetus was formed, and concludes the history with this observation : “ L'on voit souvent des choses surprenantes dans les accouchemens, et on peut dire que la nature se joue dans la génération.”*

In Mr. Pole's case of extraordinary malformation in a foetus, the bones of the head, above the orbits, were almost entirely deficient. “ The most extraordinary circumstance in this case,” he observes, “ is the attachment of the placenta to the upper part of the child's head, which was not by a mere membranous union, but of its more solid and compact parts. The largest portion of the placenta lay over the occiput and scapulæ, and extended considerably to the right and left side of the head ; so that in viewing the child, as I have represented it in

. * *La Pratique des Accouchemens.* Paris, 1685. p. 192.

the drawing, its internal surface only is seen, with the upper edge bent backward. This attachment of the placenta was principally towards the right side of the head.”*

Mr. Carrs has related a case of monstrosity in which the bones of the cranium were wanting, and likewise the brain and medulla oblongata. A rigid membranous open pouch, coming from the scalp, hung down on the back. The orbital processes, in that part which form the nasal, were perfect, and also the mastoid and zygomatic. The face was regularly shaped ; but the eyes seemed to stand on the top of the forehead, from the failure of the cranium.

“ A portion of the membranous part of the placenta was united to the scalp above the left eye ; the funis was not more than three inches in length. There was no clavicula, scapulæ, humerus, or any arm on the left side. The dorsal vertebræ were much distorted. There was a deficiency of the peritoneal covering of the epigastric region of the abdomen. The liver and small intestines protruded from the cavity on the left side, and the large ones were distended with meconium. The right foot was inverted. The features, the extremities, and parts of generation, were large in proportion to the size of the monster. The mother could not attribute this malformation to any particular cause.”†

Geoffroy St. Hilaire has given a representation of

* London Med. and Physical Journal, vol. iii. p. 397. 1800.

† Med. and Phy. Journal, vol. vii. p. 385. 1802.

the appearances observed in a case which occurred to Monsieur Duchateau, in which an aponeurotic membrane confined the head to the placenta. The placenta was attached to the back part of the left side of the head. The cord was twisted, and adherent to itself, near the placenta, similar to what was observed in the cord near the umbilicus in the case I have related.

The most remarkable band was stretched between the head and placenta. It occupied, on the left side, a considerable extent, as a prolongation of the dermis. This membrane was so strong, that it did not tear during the birth of the child. M. Geoffroy St. Hilaire has not offered any particular explanation of the manner in which these bands were formed.*

In a memoir presented by Monsieur Bonfils, of Nancy, to the Royal Academy of Medicine, a description is given of a female malformed foetus, born about the fifth or sixth month of pregnancy, having the head very much inclined to the left, and an extensive adhesion existing between it and the placenta. The thoracic and abdominal viscera were malformed and displaced, and likewise united to the placenta by membranous bands. The following is the account given by Breschet of this case :—

The centre of the internal surface of the placenta was adherent to the whole of the left side of the cranium, and covered, likewise, the nose, left eye, and

* Anatomie Philosophie, tome ii. p. 151-203.

the half of the forehead of the same side. The amnion and chorion furnished loose bands, which extended to the left side of the neck, and anterior surface of the thorax. There was a fissure from the neck to the navel, along the anterior part of the trunk in the median line, which left uncovered the greater part of the organs of the chest and abdomen. The lungs, covered by the pleura, and the thymus, had preserved their natural form and relations; but the heart, which was unusually lengthened, had a transverse direction, with the base turned backward and to the right, and the apex turned upward, and to the left. The point of the heart had contracted attachments with the bands sent off from the placenta, and by these it was drawn out of the thorax upon the superior part of the anterior surface of the walls of this cavity, and intimately adhered to the anterior part of the head. It had formed, likewise, connexions with the liver, by a band stretching between these two organs. The pericardium, which was open in front, appeared to be in a great part wanting. The cranium had sunk down considerably, in consequence of the absence of the brain, so that the band which went to the cranial bones, though only an inch and some lines in breadth, embraced almost the whole of the left side of the head. It covered the sides of the nose, the left half of the forehead, eye, temple, and the whole of the left side of the head to the neck. It was further continued into the membranous folds on the left side of the neck, and descended along with them on the superior part

of the thorax. There these membranes became united to the placental extremity of the umbilical cord, which, about two inches and a half in length, proceeded also from the centre of the placenta under the bands, adhered to the left side of the trunk by other bands extremely short, and went to terminate at the umbilicus.

The soft parts of the face and cranium were so confounded with the placenta, and the bands were so short, that it was impossible to separate them without affecting one or other of the parts united together. At the neck and thorax, these bands were from eighteen to twenty lines in length, and allowed the placenta to be separated from the parts which it covered.

Mons. Breschet has referred all the appearances observed in this case to arrest of development, without explaining the precise manner in which this could have given rise to all the various malformations which existed in the different viscera.*

Mons. Lauray transmitted the details of another case to the Royal Academy, in which the placenta adhered to the scalp of the child, through a great extent of its surface. The head was flat at the anterior and superior part, where the os frontis and superciliary ridge were wanting, and the brain covered by integuments projected above the site of the right eye, which was also wanting. There was a double hare-lip. The child lived thirty-two hours,

* Repertoire d'Anatomie, tom. ii., P. I., p. 28.

and no attempt was made to separate the placenta from the head, to which it adhered over a great part of its surface. M. Lauray remarks, that this unnatural adherence took place, “ sans qu’on peut soupçonner ni la cause ni la manière dont elle s’était établie.”*

* Nouveau Bibliotheque Medicale, 1829.