

*Observations on the Etiology of the Thrombus, or Bloody Tumour of the Head of the Fœtus in tedious Labours.* By VICENTE JOSÉ DE CARVALHO, M.D., of Oporto.

THIS is a paper of considerable length, and displaying much research into the subject mentioned. The writer describes, with much candour but some prolixity, his successive changes of opinion. He first entertained, and then rejected, the view which assimilates these tumours to sanguineous swellings the effect of contusion; his rejection of it being founded on the obvious fact that the tumour is formed, not on the part of the head exposed to pressure and bruising from the irregularity of the bones of the pelvis, but on the vertex corresponding to the orifice of the uterus, where there is little or no pressure. He then adopted the idea that the swelling arose from the impediment to the return of the venous blood from the dependent and unpressed part, where thrombus forms in consequence of the circumference of the head being tightly embraced by the neck of the uterus; the tumour being thus assimilated to the condition of the lower part of a limb, round the upper part of which a tight ligature is bound. Some observations made in the dissection of the head of a fœtus, on which such a tumour existed, led the author again to modify his opinion. The tumour being opened, and the interior of its base exposed, the occipito-bregmatic circumference of the head being bound firmly with a cord, dark blood was seen to ooze from within the cranium, through the veins which penetrated the parietal foramina situated at the base of the thrombus. On drawing the ligature more tightly, there began to flow from within the cranium vermiform coagula of some inches in length, proceeding from the superior longitudinal sinus; which, on subsequent examination, was found empty.

The following are the conclusions which Sr. V. J. de Carvalho thinks himself justified in deducing from this anatomical fact and all the phenomena of the tumour:

1. The thrombus, or sanguineous tumour of the head of the fœtus, ought to be considered as a true *diverticulum* of cerebral blood, in which a portion of this liquid is accumulated on each occasion that the head is delayed for a considerable period in the pelvis.
2. On this occasion the encephalon and the head of the fœtus diminish absolutely in volume, which will be less in proportion to the quantity of blood received in a short time into the *diverticulum*.
3. The blood contained in a thrombus should be considered as a cerebral bleeding, which nature performs in lingering labours, to prevent the apoplexies, effusions, and other accidents to which the fœtus would be liable on such occasions.
4. The cavity of a thrombus represents that of a vessel hermetically sealed, where the blood is preserved liquid in a temperature equal to that of the part whence it has proceeded.
5. Nature performs a true transfusion with the blood of the same individual, when she causes that which she had preserved for some time in the *diverticulum* to re-enter the circulation.
6. The thrombus communicating directly with the superior longitudinal and lateral sinuses, the tumour should never be opened, on account of the risk of the introduction of air into these canals, which would be necessarily fatal.
7. The oblong figure which the thrombus presents occasionally, rendering more acute the pyramidal form which the head possesses in occipital presentations, contributes, in the manner of a wedge, to the dilatation of the neck of the uterus and of the vagina in the act of parturition.
8. As the compression of the body and head of the fœtus, conjointly with the dependent situation of this part, was the cause of the formation of the thrombus, so the cessation of the pressure on these parts and the altered position of the infant, assisted by gentle compression on the tumour, suffice for its dispersion in a few hours.

[The part of the author's paper which we think the most questionable is the assumption of the fluid condition of the blood within the tumour for a considerable period, and the reasoning founded upon it. This is certainly contrary to what is observed of blood when extravasated, even within the body.]

The patriotic author concludes his paper by expressing the hope that this new etiology of thrombus, conjoined with other national discoveries, will tend to elevate Portuguese obstetrics above the contempt of certain foreigners of whom he complains.]

*Jornal de Sociedade das Sciencias Medicas de Lisboa, for Dec. 1836.*