

tached to the chorion; the chorion is intimately connected with the decidua; and the decidua is attached to the uterine wall in pretty much the same manner as the mucous membrane is attached to the non-pregnant uterus. Having then very firm union between the chorion and decidua, and a more feeble union between the chorion and amnion, and between the decidua and the uterine wall, it is only natural to expect that the lines of cleavage, or separation of the membranes, would be either between the amnion and chorion or between the decidua and uterine wall. The latter is where separation usually takes place. What is the mechanism of the separation of placenta and membranes from the uterine wall? Various factors are concerned: (1) the contraction of the uterus; (2) the retraction of the uterus; (3) the effusion of blood. Dr. Cameron then dwelt upon the two theories which were put forward to explain the expulsion of the placenta. The one claimed that the contractions of the uterus during labor caused the placenta to arch or bulge downwards into the uterine cavity, causing a partial separation from the uterus with effusion of blood into the concavity of the arch, between the placenta and uterus. The pouring out of this blood caused by its pressure a still further increase of the arching process, until finally the whole placenta separated and descended with its foetal aspect presenting. The other theory was that rupture of vessels played no part in the separation and expulsion, which were solely the result of the contraction and retraction of the uterus. The speaker thought both explanations were right in certain cases, the situation of the placenta as well as its extent determining the mechanism of separation and expulsion. When the uterine wall contracts, the placenta contracts also, it moves with, but not to the same extent as, the uterus. The placenta can be diminished in area by contraction about one-half on the average. Having reached the limit of its reduction in size, it remains rigid, while the uterus goes on contracting, and draws itself off from the placenta. Some authors believe this separation begins in the centre, some at the side. It was then explained how it may occur in either way. In studying the mechanism of separation, it is important to remember that the whole uterus contracts, not the placenta only, so that not only does the placental surface decrease in size, but the whole uterus contracts and grasps it on all sides. The method of separation depends largely upon whether the uterus contracts upon the placenta evenly all around, or whether the contraction is irregular; and upon whether the placenta is uniformly adherent to the uterus or has some points at which it is more firmly adherent than others. Irregular uterine action and abnormal or pathological attachment of the placenta modify the mechanism of the separation and expulsion of the placenta.

Another point to be borne in mind is that there is not normally a true uterine cavity into which the placenta may bulge. As soon as the child is born, the uterus contracts and the anterior wall comes against the posterior wall. It is this absence of an actual cavity which makes the theory of the arching of the placenta untenable in most cases; sometimes when it is situated directly over the fundus, its central portion may bulge down towards the os which is the point of least resistance. But if the placenta is situated upon the side of the uterus, arching does not take place, but the lower edge glides downwards and presents at the os. Coming then to the separation and expulsion of the membranes, it will be remembered that the portion over the lower uterine segment was separated during the first stage; the rest which constitutes about four-fifths of the whole is attached. The membranes are separated (1) by retraction of the uterus during the second stage and the beginning of the third stage. As the uterus is emptied, it retracts by drawing the uterine wall together; the membranes are thus thrown into wavy folds which are most marked close to the uterine surface or in the decidual layer. The crest of each of these folds in the decidua tends to separate from the uterine wall, and a little hæmorrhage follows, which still further separates the membranes. This, however, is only capable of carrying the separation a certain distance, and the process has to be completed by the traction of the placenta which drags the membranes after it as it descends.

We have here a fair statement of the problem before us. The mechanism varies according to where the placenta is situated on the uterine wall, its extent, the existence of pathological adhesions, the uniformity of uterine contraction, the relative strength of the union between amnion and chorion as compared with that between chorion, decidua and uterine wall.

In concluding his introduction, Dr. Cameron hoped the discussion would be narrowed down to the two following questions: (1) Are drugs of any value, do they help us in the management of the third stage of labor; if so, what are they? What are their indications and contra-indications? (2) Are manipulations of service; if so, what manipulations and when are they of use? What are their indications and their contra-indications?

Dr. H. L. REDDY then took up the drugs used in the third stage of labor; his paper on the subject was as follows:—

The part assigned to me in to-night's discussion is the use of drugs, or rather the drugs used, in the third stage of labor.

I find that it is impossible to limit myself to the third stage in some cases; as, for example, chloroform, which is so commonly used in the second stage, and so frequently produces un-