

The contact in this case is direct, between the vessels of the absorbent villus and the epithelium of the secretory villus which is never lost. Only two very simple changes occur in the fundamental parts of the placenta when single, and they are the factors of the manifold differences which are observed: first, the loss of the epithelium of the absorbent villus, and second, the dilatation or ectasia of the vessel in the maternal villus, and this is remarkable only in the placenta of the quadrupara and in women.

The formation of the lacunæ precedes the formation of the tufts of the villi, and further evidence regarding them may be found in the structure of the so-called uterine decidua in cases of extra-uterine pugnancy, where may be seen in the maternal portion of the placenta lacunæ through ectasia of the vessels without any trace of the fetal villi.

Marcy states that the old views that the lacunæ are large cavities, and that the chorial villi float in the maternal blood are fundamentally wrong, as clearly set forth by Ercolani's teachings.

He thus sums up the chief changes in woman during pregnancy. (1) The mucous membrane of epithelium disappears from the subjacent muscular walls. (2) It is replaced by a layer of decidual cells, proliferated from the vascular network of the uterine wall. (3) The utricular glands are not destroyed but on the contrary increased in size. The constant secretion therefrom forms openings through the decidua vera, which may easily be traced by the unaided vision as a sieve-like perforation through the proliferation of the serotinal cells at the placental site. These glands are by the pressure of their own obstructed secretion dilated and altered. (4) The second period of development begins with the rapid and exuberant proliferation of branches from the trunks of the fetal villi and the ectasic process in the network of the maternal vessels. Resulting from this the branches of the proliferation villi press against the endothelial walls of the vessels, which are at the same time thinned and dilated, and the ultimate result is that the walls of the villus, at first simply bent in towards the cavity of the dilating vessel, must as the process of aneurism becomes more and more pronounced completely invest the villus, aided also by the tension exercised upon the walls of the vessel. Intimate union with the introflected wall of the maternal vessel lined with its layer of decidual cells

ensues and the picture of the villi swimming in the lacunæ is complete.

"Prof. Ercolani sums up," says Marcy, "with the following conclusions":—In all the vertebrates the nutritive material which is to serve for the growth of the fœtus is furnished by the mother. In mammals it is supplied by the maternal portion of the placenta, gradually as the fœtus develops. In the viviparous vertebrates, the material, in the quantity necessary for the development of the fœtus, is emitted in a mass from the mother, in the egg. In the mammiparous, as in the viviparous animals, the absorbent or fœtal part does not change, and it is by means of an absorbent villus more or complicated that the material elaborated by the mother is conveyed to the fœtus. There is therefore but one law, a physiological modality, that governs the nutrition of the fœtus in all the vertebrates.

The Use of Corrosive Sublimate in Obstetric Practice.

Szabo (*ibid*) says that the use of sublimate is approved of at the Buda-Pesth Obstetric Clinic, but the following conditions and restrictions have been found useful: 1. For the disinfection of the hands a solution of sublimate of 1 to 1,000 is recommended. 2. For the disinfection of the external genitals a sublimate solution of 1 to 2,000 should be employed. 3. For the disinfecting irrigation of the uterine cavity or the vagina a sublimate solution of 1 to 4,000 is recommended. 4. Irrigation of the vagina, and still more of the uterine cavity, is permissible only when the indication is very positive, either after parturition or during the puerperium. 5. Not more than two quarts of sublimate solution should be used for irrigation of the vagina or the uterine cavity. 6. In atonic hæmorrhages postpartum a 1-to-8,000 sublimate solution should be used as a hæmostatic. 7. Sublimate should not be used with women who are suffering from anæmia, phthisis, nephritis, or diseases of the digestive organs.

HYGIENE.

Lœwenthal on Hygiene.—(*Translated*.)

Lœwenthal, (Professeur agrégé à l'Académie de Lausanne), in his recent memoir on "*L'Enseignement actuel de l'Hygiène*," says: That we ought to determine what hygiene is and the role which it is called upon to play in science and in