

the mucous substances within the villi, continuous with the substances within the cord (Virchow,) and a degeneration of the epithelial cells derived from the decidua which replaces the epithelial covering of the chorion (exochorion). The process usually begins when the villi are equally developed over the whole ovum, that is, before the third month, as after that period the villi of the chorion atrophy over the whole periphery of the ovum.

The disease usually involves the whole chorion, but occasionally the placental portion alone is involved. In these cases the disease began after the atrophy of the villi had taken place over the extra-placental portion of the chorion.

Virchow, in 1853, expressed the opinion that it was a true myxoma of the endochorion, the exochorion not necessarily taking part in the morbid process. This view was universally accepted until 1895, when the investigations of Marchand⁴ demonstrated that it was the epithelial covering of the villi, more than the stroma, that was affected, and that both the syncytium and Langhan's layers of cells underwent profuse and irregular proliferation, penetrating Nitabucks' fibrin-layer and making their way into the depth of the decidua, and occasionally into the uterine musculature as well. At the same time the blood-vessels of the terminal villi disappeared and the stroma degenerated, the cells presenting a necrotic appearance. The fluid contents of the vesicles failed to give the characteristic reaction for mucin, in consequence of which Marchand decided that the condition was one of oedema. This decision, I believe, has been accepted and confirmed by all leading pathologists.

Etiology.—The cause or causes of vesicular mole are not known. Both a fetal and a maternal origin have been suggested, but the weight of authority at present seems to incline towards favoring a maternal causation, considering the death of the fetus as secondary. It is supposed, however, to be caused by a disturbed maternal circulation. Owing to this failure in the circulation the connective tissue of the villi degenerates and a serous infiltration takes place. The proliferation of the syncytium and Langhan's layer being due to their penetrating deeper into the decidua to get adequate nourishment. Syphilis, tuberculosis and endometritis are mentioned among the predisposing causes. Virchow considers the primary factor to be disease of the decidua. In most cases the mother is a multipara and over thirty years of age. In 212 cases collected by Findlay, the majority of them occurred between twenty and thirty years of age. Hydatidiform mole occur in about 1 in 2,000 cases of conception.

Symptoms.—The symptoms usually present themselves before the tenth week; of these there is a group of three which covers.