

later developments of tubal pregnancy owing to a secondary invasion from the Fallopian tube.

*Etiology.*—A careful and thorough consideration of the causation of ectopic gestation is indispensable for a proper explanation of many of the clinical symptoms observed, as well as for an accurate diagnosis at any early date.

Among the classical causes put forth in the various textbooks, both large as well as small, one finds something like the following:—Diseases of the mucous membrane depriving it of its cilia; other inflammatory changes in the mucous membrane, contractions in the calibre of the tube, the result of chronic salpingitis or perisalpingitis; peritoneal adhesions constricting or distorting the tube; intratubal polypi; atresia of one tube with external migration of the fertilized ovum, or of the spermatozoon of the opposite side; all pointing, as they do, to a previous history of pelvic disease or decided deformity in some form. With these the etiology generally stops, a fact which is at least misleading to the clinical observer. With such etiological factors alone before his mind he will pass by as impossible an otherwise strongly suspected case.

A study of the development and structure of the tube and the means afforded by it for the transit of the ovum will serve to explain the occurrence of ectopic gestation in a woman with no history of pelvic disease, or of long sterility, or, in other words, the occurrence of ectopic gestation in a perfectly healthy woman with normal menstrual functions. The delicate plications of the mucous membrane of the tube, covered with innumerable cilia waving always toward the uterus, tend to sweep the ovum onward and outward, while the peristaltic action of the muscular fibres of the tube aids in the work done by the cilia. If from any want of activity on the part of the cilia, or if the action of the muscular coat be impaired, or both, owing to some nerve influence, it cannot fail to have its bearing on the progress of the ovum.

Slight congenital anomalies of the tube, the result of anomalies in early embryonic development of the Mullerian ducts, may produce an imperceptible stenosis in the calibre of the tube, yet sufficient to impede the progress of the ovum on its way to the uterus. Unusual hyperæmia, or marked menstrual changes in the tubal mucous membrane, renders possible an arrest of the