

the early operation. Forgue describes in detail the anatomy and surgical treatment of these herniæ when they present in the minor degree. Broca has designated embryonic extrusion as "hernia into the open canal." Delanglade describes the sac as being composed of the laminae, between which is a layer of Wharton's jelly, and says that their thin vitelline membrane may rupture before birth, during delivery, or after the child is born. In those of a minor degree, embryonic hernia, whether into the cord or a diverticulum, is not a serious defect, but in the exaggerated type, as the one recorded, art is powerless and death is inevitable. The embryological defect leading to embryonal hernia is of singular interest. The subject is not only directly related to embryology, but comparative anatomy, a branch of anatomical science which Professor Huntington has recently introduced into the regular course at the College of Physicians and Surgeons.

Professor Mall, of Johns Hopkins Medical College, in a recent able contribution, entitled "Development of the Human Intestine

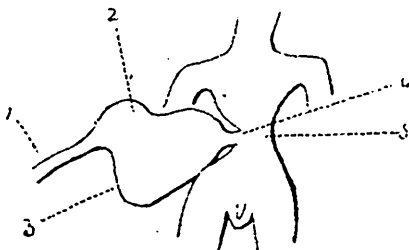


FIG. 5.—TOTAL EVAGINATION.—(1) Umbilical cord; (2) Cavity of sac containing all the abdominal viscera except the kidneys; (3) Gauze-like envelope of sac; (4) Constricted isthmus at base; (5) Collapsed abdominal plates.

and its Position in the Adult," in speaking of the excursions of the fetal viscera, and the rather mysterious migrations of the intestinal tube during fetal existence, says: "Although it is comparatively easy to understand how the intestine leaves the peritoneal cavity to enter the cord, it is extremely difficult to see how and why it enters. When the intestine enters the cord the communication of the cecum with the body cavity is very free and the intestine small, but when the intestine returns to the body the cavity is large while the opening is small. . . . The return of the intestine into the body must take place very rapidly, for I have never seen a specimen in which it is in the process of returning. Embryos 40 mm. long either have the intestine in the cord or in the peritoneal cavity, and, if it is in the latter, the communication between the cord and peritoneal cavity is open and surrounded by a thin membrane, showing that it also is being closed. This membrane now closes the whole opening, and later the recti muscles wander into it to complete the abdominal walls." The condition is therefore an arrest of developmental processes, which