least two inches above the umbilicus. Authorities differ in defining umbilical hernia. A congenital umbilical hernia is of course *in* the umbilicus, it is a *hernia funis*; and the acquired umbilical hernia of children, generally small and easily cured by pad and bandage, is a hernia through the umbilicus. But in the majority of so-called umbilical herniæ, occurring in the adult, I venture to think the protusion takes place in the linea alba at a point higher up than the umbilicus, and perhaps the term ventral hernia would be more accurate.

Umbilical hernia is said to occur most frequently in women who have borne large families. This patient, though certainly stout and flabby, was nulliparous. The hernial orifice is said to be usually large; in this case it was small and with extremely thick edges.

There is great unanimity among surgical writers as to the danger of operation in umbilical hernia, but reasons are seldom assigned for this unusual mortality.

One reason may be found in the anatomical relations of the parts. The omentum is almost certain to complicate matters, and frequently in addition to the strangulation in the abdominal wall there are secondary constrictions due to protrusion of the bowel through fenestrae in the omentum. Then, as a rule, there have been repeated attacks of local inflammation leading to adhesions of the omentum to the sac, and of coils of irreducible intestine to each other, and perhaps to the omentum and sac as well. But probably the chief source of danger lies in the fact that in this situation the wound secretions tend to gravitate into the peritoneal cavity instead of away from it, as at the groin, and if these secretions are allowed to become septic, this is certainly a source of danger.

With the adoption of antiseptic measures however this danger is eliminated, and it is not easy to see why the results of operative interference in umbilical hernia should ultimately be worse than in other forms of hernia. Indeed, from the point of view of successful antiseptic dressing, the umbilical region offers more advantages than the inguinal or femoral as being further removed from risk of septic contamination.

In many standard text books stress is laid on the advantage of leaving the hernial sac unopened if possible, and this especially in umbilical hernia. But with the clearer views of surgical pathology and wound treatment which have had their rise in the work of Lister, this fear of invading the supposed sancitity of the peritoneum has gone, and most writers on hernia now recommend opening the sac in all cases of herniotomy. * Billroth considers "far better to open the sac on all occasions," and † Nussbaum speaks of Petit's operation, or external herniotomy, as being "nearly obsolete." Taxis is at best a blind operation, and the mortality following herniotomy is doubtless in many cases due, not to the cutting operation, but to prolonged efforts at reduction by taxis.

It is not easy to obtain reliable statistics of hernia, either as to the relative frequency of the various kinds, or as to the results of treatment, but umbilical hernia is certainly comparatively rare and unusually fatal when strangulated.

‡Paget, in reviewing 100 cases of strangulated hernia, mentions only one umbilical, and that was fatal. In a statistical compilation of 34 cases of herniotomy, in §Bardelebens Clinic, there were no umbilical or ventral herniæ. ‖P. S. Conner, of Cincinnati, in the analysis of 33 cases in his own practice gives one umbilical, fatal. In a resume of 136 operations for radical cure of hernia by **Socin, of Basle,

* Clinical Surgery. Syd. Soc. trans. p. 250.
† Leitfaden zur antiseptischen Wundbehandburg 1887.
‡ Clinical Lectures and Essays, 1875.
§ Annals of Surgery, 1888, Vol. I, p. 159.
‖ Ibid, 1887, Vol. I, p. 158.
** Ibid, 1887, Vol. I. p. 241.