

on the detection of impulse are worthy of the most careful attention : " The impulse in ordinary non-strangulated hernia, whether the contents of the sac be omentum or bowel, is *expansile* in character—that is to say, the tumour, when the patient coughs or strains, not only rises under the hand, but expands in size. In hernial tumours containing bowel this sudden increase in the bulk is principally due to the additional quantity of gas, &c., which is suddenly driven into the herniated portion of gut by the act of coughing or straining. In omental herniæ the expansion is partly due to the sudden turgescence in the omental vessels, and partly to the increase of tension in the sac due to the cough. Naturally, therefore, the amount of expansion is relatively greater in herniæ containing bowel than in those composed of omentum. . . . In strangulated hernia it is important to understand that absence of impulse does not necessarily mean *immobility* during coughing, for a hernia, even if tightly strangulated, will often move freely under the hand, especially if it be omental. This movement is, however, rather of the nature of a jump or jerk, and is never expansile. There is no question which has a more practical bearing upon the treatment of strangulated hernia than the expansile character of this impulse. It may be safely held as a surgical dictum, that *every case of hernia in which any change has taken place in the condition of the tumour, such as increase of size or tension, whilst expansile impulse is absent, should be regarded as strangulated.*"

(d) Sir J. Paget¹ thus wrote of the *hardness* of a hernia : " In large herniæ the hardness may chiefly be felt at and near the neck and mouth of the sac, especially in inguinal herniæ, and you must take care not to be deceived by a sac which is soft and flaccid everywhere except at its mouth, for there may be strangulated intestine in the mouth of the sac, though the rest contain only soft omentum or fluid not sufficient to distend it ; nay, you must not let even a wholly soft condition of the hernia, or an open external ring, weigh down against the well-marked symptoms of strangulation, for the piece of intestine at the mouth of the sac may be too small to give a sensation of hardness, or the whole hernia may be omental."

B. *General : The Symptoms of Intestinal Obstruction.* (1) Constipation becoming absolute, even as to flatus. It is well known that small scybalous motions may be forced out by the straining of a patient with a strangulated hernia anxious to get his bowels to act. Further, and in intestinal obstruction generally, the bubbling away of an enema may simulate the passage of flatus. In those rare cases where, other evidence of strangulation being present, the bowels continue to act at intervals, it is probable that the constriction of the bowel is not complete, but leaves a channel along the mesenteric border (Richter's partial enterocele). In such cases which have been left long, owing to the absence of constipation and perhaps the slightness of the vomiting, the surgeon must examine the bowel very carefully before he returns it. Constriction, though only partial, may have caused here, from its long duration, thinning or ulceration of the intestine at one spot, and faecal extravasation may take place as soon as the bowel is returned. If there is any reason for doubt in these cases the stricture should be thoroughly divided and the bowel left *in situ*.

Constipation may be absent in cases of strangulation of the omentum alone, or of an appendix epiploica, or of the ovary.

¹ *Clin. Lect.*, p. 108.