

routine use of clamps and packs. The adoption of continuous sutures instead of mechanical devices such as Murphy's button for making anastomosis is also a great safeguard against sloughing and secondary leakage, which used to be more common. The universal adoption of rubber gloves has done a great deal to exclude extraneous infection. Occasionally, however, peritonitis does develop after an anastomosis of the lower part of the small intestine for intestinal obstruction. It is of very great importance to recognise the condition, for it is well known that a secondary peritonitis is easily overlooked and has a very high mortality. It is rarely worth while to open the abdomen when the disease is well advanced, but if the condition is recognised quite early reopening the abdomen and adequate treatment of the cause with free drainage of the peritoneum are always worth doing. The early signs of peritonitis are therefore of great importance. These are pain and restlessness, with an increasing pulse-rate from 110 to 140. The pulse always becomes weak and the patient soon cold and clammy with an anxious expression. The knees are drawn up, sometimes there is vomiting or hiccough, sometimes the temperature goes up, but above all the abdomen becomes tender, fixed, and rigid. These signs are especially ominous when they present themselves in the flank, where they cannot be mistaken for the natural tenderness around the wound.

(c) *Intestinal obstruction* sometimes follows abdominal operations, but is not always due to them. It is especially likely to happen from kinking after incomplete operations for suppurative appendicitis. Occasionally a kink occurs above an anastomosis, and bands or accidental hernia either into the deeper parts of the wound or into the omentum or mesentery may occur. It is of vital importance to recognise the condition while it is still hopeful. The most important signs are persistent vomiting in spite of lavage, the vomit gradually becoming bilious and later brown and foul. Meanwhile the pulse is slow and the patient in much pain and collapsed. The bowels fail to act in spite of repeated enemata. The secretion of urine is almost abolished and abdominal distension increases, with visible peristalsis in some cases. When the condition is strongly suspected the abdomen should be opened without delay and the condition dealt with as may seem fit.

(d) *Pulmonary complications.* Attention has already been drawn to the great importance of keeping the mouth clean and of the sitting-up position. Care should also be taken to prevent infection from the anæsthetic apparatus or from the aspiration of vomit during or after the anæsthetic. For this reason it is of the greatest importance to wash out the stomach before the operation in many cases of intestinal obstruction and also of gastric dilatation. The abdominal bandage should not be tight enough or extend high enough to restrict breathing, and the patient should be encouraged from the beginning to take deep breaths several times daily. Compression of the bases of the lungs should also be avoided during the operation. For this reason the Trendelenburg position, when required, should not be maintained longer than necessary. When intravenous infusion of large quantities of saline solution was common pulmonary complications were sometimes secondary to œdema of the lungs, and that is one of the reasons why axillary infusion and especially rectal salines are much better than intravenous infusion in the great majority of cases, for the blood-pressure is never raised so much or so suddenly by them as it is by intravenous infusion.