

PROCEDURE

A vertical incision is made in the middle of the paralumbar fossa extending from 3 to 5 cm ventral to the transverse processes of the lumbar vertebrae for a distance of 20 to 25 cm. To incise the skin, reasonable pressure should be exerted on the scalpel to ensure complete penetration. This incision is continued ventral, so the skin is opened in one smooth motion. Separation of the skin and subcutaneous tissue reveals fibers of the external abdominal oblique muscle and fascia (Figure 13.1B). This layer is incised vertically to reveal the internal abdominal oblique muscle (Figure 13.1C).

A similar incision through the internal abdominal oblique muscle reveals the glistening aponeurosis of the transverse abdominal muscle (Figure 13.1D). Then the muscle is picked up with tissue forceps and is nicked with a scalpel in the dorsal part of the incision to avoid cutting the rumen. The incision through the transverse

abdominal muscle and peritoneum may be extended with scissors or a scalpel for entrance into the peritoneal cavity (Figure 13.1E).

A thorough, systematic examination of the abdomen should always be carried out before specific surgical manipulation is performed on a viscus. If the viscera are in normal position, the duodenum will be encountered running horizontally across the dorsal part of the incision with the mesoduodenum dorsal and the greater omentum ventral. The pylorus and abomasum can be palpated ventrally. The greater omentum may be reflected cranial to allow examination of the jejunum, ileum, cecum, and colon. The kidneys and pelvic region can also be palpated at this stage. The rumen can be palpated as well as part of the reticulum and diaphragm feeling for adhesions between the two. The omasum, liver (the right-flank approach allows complete palpation of this organ), gallbladder, and diaphragm can be palpated cranially on the right side.

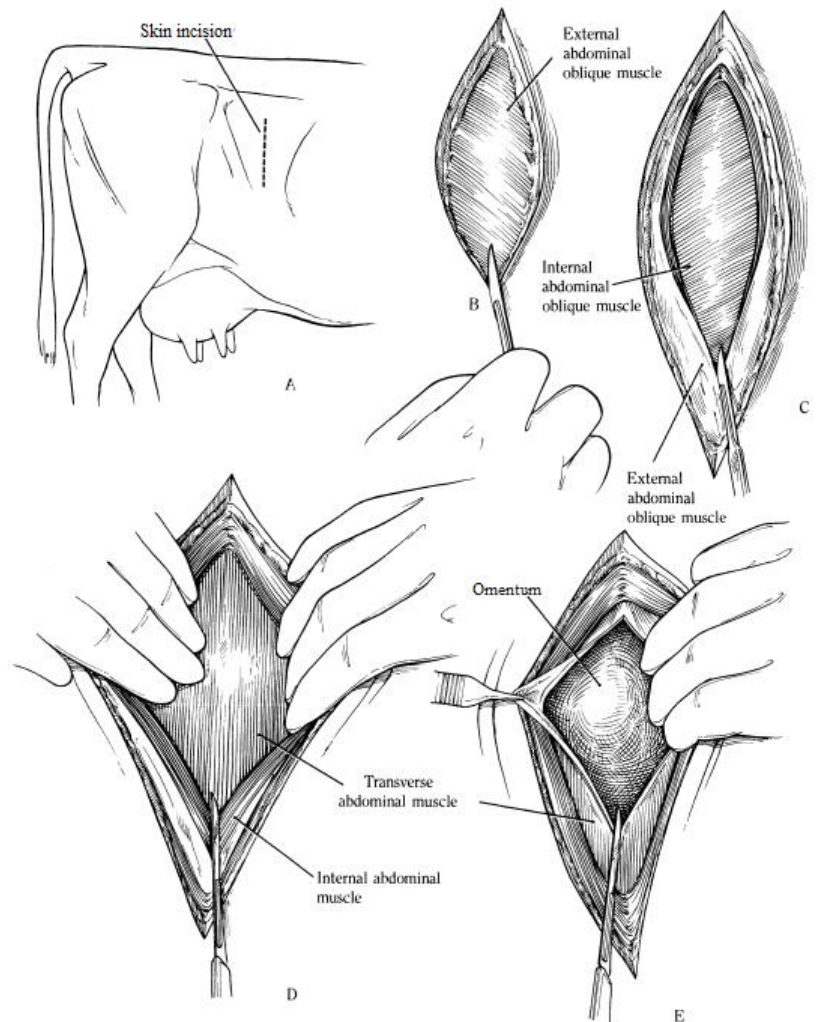
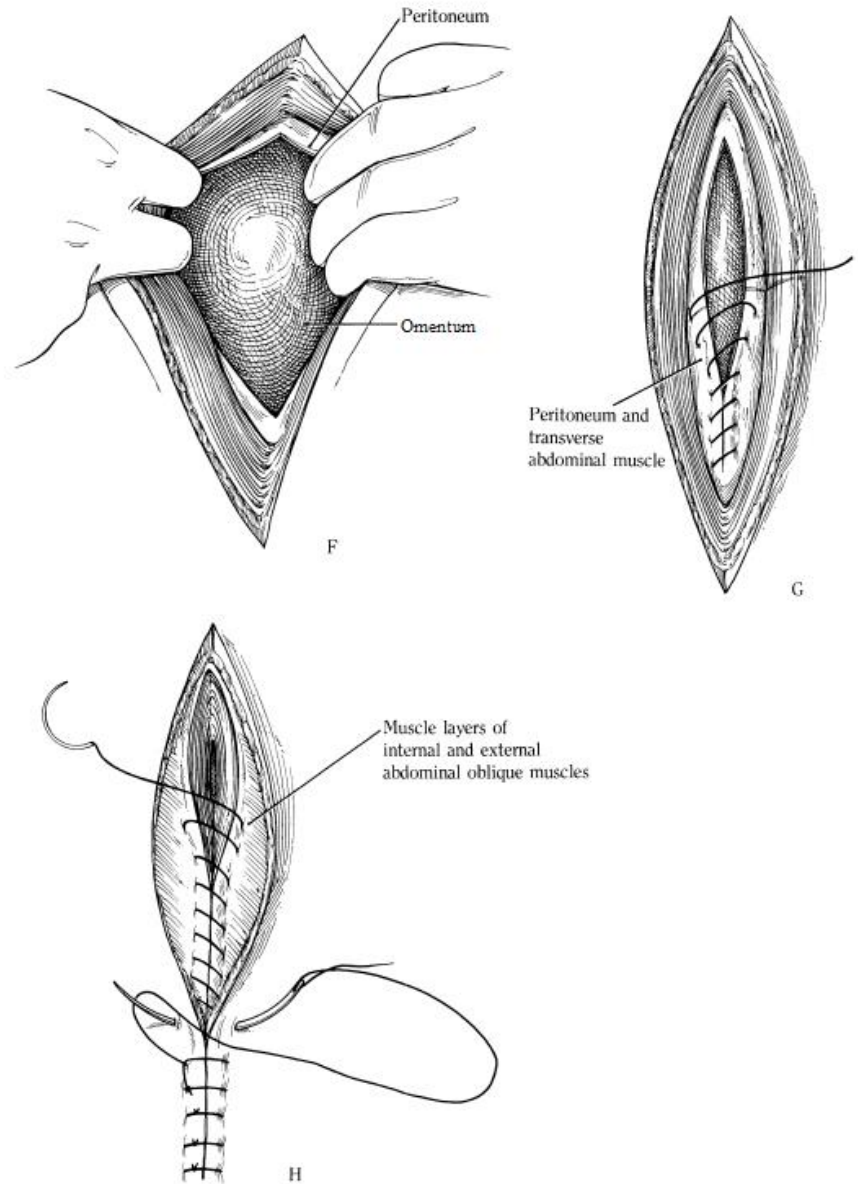


Fig. 13.1. A–H. Flank laparotomy and abdominal exploration.

Routinely, a flank laparotomy incision is closed in three layers. The peritoneum and transverse abdominal muscles are closed together with a simple continuous suture pattern using no. 0 or no. 1 synthetic absorbable suture (Figure 13.1G). Placing this suture layer in a ventral-to dorsal direction is helpful to maintain the viscera within the incision, particularly on the right side. The internal and external abdominal oblique muscles may be closed with a second simple continuous layer using no. 1 synthetic absorbable suture (Figure 13.1H). This suture line is anchored to the deeper transversus muscle at various intervals to obliterate dead space. It is also desirable to take even bites on either side with the muscle closures, so the muscles will come together without a defect and without wrinkling. If the external and internal abdominal oblique muscle layers are substantial in a large cow, closure should be performed in separate layers.

Generally, skin closure is performed with a continuous Ford interlocking pattern using heavy polymerized caprolactam (Vetafil™) (Figure 13.1H). At the surgeon's option, 2–3 simple interrupted sutures may be placed in the ventral aspect of the incision (Figure 13.1H). This measure allows easy drainage if infection develops in the incision. Such an event is possible in the compromised conditions under which this surgical procedure may have to be performed. If the skin incision has been obviously

Fig. 13.1. Continued.



contaminated, as by the delivery of an emphysematous fetus, an interrupted suture pattern may be more appropriate.