

Simple Technique for Anvil Insertion in Stapled Circular Colorectal Anastomoses

Mark W. Dobriner, M.D., Barton Hoexter, M.D., Samuel B. Labow, M.D., Michael D. Moseson, M.D.

From the Department of Surgery, North Shore University Hospital, Manhasset, New York

The benefits of circular stapling devices are obvious. The introduction of staplers with detachable anvils has simplified the stapling procedure even more than the original instruments. A simple technique for placing the anvil and pursestring are described. [Key words: Gastrointestinal anastomosis; Colorectal anastomosis; Stapler; Surgical technique]

Dobriner MW, Hoexter B, Labow SB, Moseson MD. Simple technique for anvil insertion in stapled circular colorectal anastomoses. *Dis Colon Rectum* 1993;36:778-779.

Circular stapling devices (PREMIUM CEEA™; U.S. Surgical Corporation, Norwalk, CT) have revolutionized bowel surgery. They have markedly simplified the performance of colorectal anastomosis and obviated the need for abdominoperineal resection in many patients. We would like to describe our technique for placing the anvil and pursestring in preparation for anastomosis and thereby demonstrate its advantages.

TECHNIQUE

Immediately after the segment of the sigmoid colon or rectum is resected, the proximal cut end of the colon is prepared for anastomosis. Sufficient mesentery is cleared from the bowel wall, and the properly sized anvil is placed into the bowel lumen (Fig. 1).

Next, a pursestring whipstitch of 00 polypropylene is placed along the cut edge of the bowel (Fig. 2), and the anvil is secured into place (Fig. 3). The noncrushing clamp that is normally placed across the bowel proximal to the cut edge during the resection can now be removed. This segment

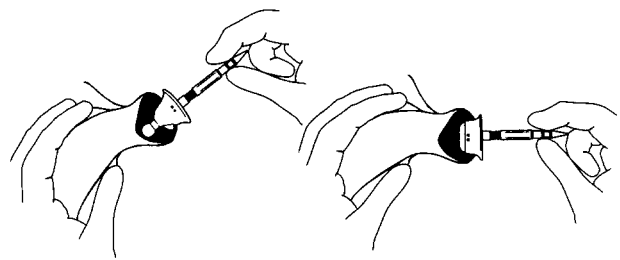


Figure 1. Two kinds of anvils can be used. One can push it on with one's hands, so no additional instruments are necessary.

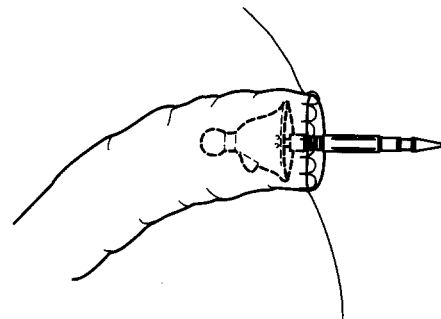


Figure 2. Instrument inserted into bowel; pursestring applied.

of bowel can now be packed away until the surgeon is ready to perform the anastomosis.

COMMENTS

We believe that there are several advantages to placing the anvil into the bowel prior to placing the pursestring. First, there is no need for instruments, which are often damaging to the tissues, to be placed on the bowel for any length of time since

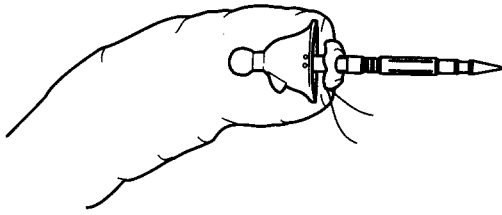


Figure 3. Pursestring secured on shaft.

the anvil is usually easily inserted by hand. Second, excess pulling and dilatation of the bowel, which often occurs when the pursestring is placed prior

to the anvil, is avoided. This prevents the creation of splits in the serosa of the bowel wall. Third, the amount of time that open bowel is exposed is shortened, and the risk of spillage of bowel contents is virtually eliminated, once the anvil is in place.

There have been no technical problems encountered in utilizing this method to perform several hundred stapled anastomoses. Therefore, to prevent injury to the bowel and shorten the period of open bowel and possible contamination, we advocate this simple technique for performing circular stapled anastomoses.