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Stapled and Hand-Sewn Anastomoses in Crohn's Disease

In this issue Kusunoki et al. [pp 679–682] prospectively compare sutured and stapled anastomoses in patients undergoing resection for Crohn's disease and conclude that they are equivalent.

With surgery for Crohn's disease, it is important to remember that if it is performed well, the surgical results will be good. Some commonsense variables need to be taken into account. The first of these is bowel thickness. With more and more surgeons doing minimal resection for Crohn's disease, it is important that the anastomosis be performed in palpably normal areas of bowel. Two different staple sizes are used for linear stapling instruments – 3.6 vs. 4.8 mm staple size. The smaller staple size may not be able to close completely if used on very thick bowel. Similarly, with a thicker staple there may not be as good hemostasis due to the larger staple profile. Attention to bowel wall thickness and whether the colon or small bowel is being anastomosed is important in staple selection. For this reason staplers have not been used for Heineke-Mikulicz strictureplasty in Crohn's disease. The bowel in these areas of stricture is very thick, fibrotic and does not staple well.

The second parameter that must be considered in stapling versus suturing anastomoses is in agreement with the authors' experience that stapled suture lines are more likely to bleed. This is similar to the one layer hand-suture technique where there is no inner suture line designed to provide for hemostasis from the cut edge of the bowel wall. As the authors illustrate, it is important to examine the staple lines and if there is bleeding to either ligate this or use electrocautery to stop the bleeding. With end-to-end anastomoses, such as colorectal anastomoses, hemostasis can also be obtained by electrocautery through a proctoscope. As with all types of surgery, attention to detail and knowledge of proper technique is paramount in obtaining good results.