Biofragmentable anastomosis ring versus hand made suture in intestinal resection

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ChapterXIIConclusion and summaryThe biofragmentable anastomotic ring (Valtrac; Davis and Geek,Wayne, New Jersey, USA) is a device used to construct an invertingintestinal anastomosis. It is composed of polyglycolic acid and bariumsulphate, and provides a mechanically locking connection that maintainsthe serosal surfaces of the bowel ends in apposition until healing occurs.Once the two caps of the ring are inserted into the ends ofthe bowel andthe purse-string sutures are tied snugly around the device, the ring islocked by pressing on its caps until they are approximated and ”click”together. However, the instruction manual for the Valtrac ring points:”...click may occur infrequently in the absence of secure closure.Secure closure may occur in the absence of a click. Inspection and gentletraction are recommended to reassure the surgeon that proper closure hasbeen obtained.”A simple method of testing the closure of the ring without riskingdisruption of the anastomosis has been devise, the ring is grasped withthe index and middle fingers and the thumb at the junction between thetwo caps and gentle pressure applied tangentially. If closure is notsecure, the two caps separate easily and another attempt can be made toclose them.In all cases of faulty closure, reapproximation of the caps wassuccessful on a second attempt. The manual compression needed toeffect closure of the device when performing the anastomosis may worrysurgeons, however, and the narrower internal lumen of anastomosis withthe BAR compared with a manual suture of the same external diametermay increase the risk of post operative obstruction or stricture formation.------- .• 0,.----- .Chapter XIIWe have not found an increased risk of complications during or afteroperation with the BAR; indeed, the ring made anastomosis easier insome patients compared with manual sutures.There were no early clinical or subclinical leaks, nor any late leaksfollowing fragmentation ofthe device. Reservation about the integrity ofsutureless anastomosis are therefore unfounded. Use of the BAR haspositive advantages, and the fear of anastomotic complications appear tobe groundless.This experience seems to confirm, with other authors, that BARprovides an effective anastomosis method: it gives a completely inverted,nonischaemic anastomosis, without additional incision nor residualforeign bodies. It shortens operating times and its technique seems to beeasy to learn and to perform. Complications and mortality are notincreased even in case of multiple anastomosis.