

Transanal tube NO COIL[®] after rectal cancer proctectomy. The "G. Paolo II" Cancer Centre experience

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ABSTRACT

Aims and background. Covering stoma is the main method used to protect low-lying anastomosis after cancer proctectomy. Intraluminal rectal pressure could be a potential risk factor for anastomotic leakage. We present our personal experience with an alternative and original device, the transanal tube NO COIL[®], evaluating its feasibility and safety based on a preliminary manometric study.

Methods. From May 1998 to March 1999, an experimental manometric study on 35 subjects was performed to assess the pathophysiological basis of intraluminal rectal pressure with or without the transanal tube. Subsequently, from April 1999 to December 2009, 184 patients (107 males, 77 females, average age 68.2 ± 10 years) with primary adenocarcinoma of the rectum (≤ 12 cm from anal verge) were selected. Eighty-two underwent total proctectomy and 102 subtotal proctectomy. No stoma were fashioned. At the end of the operation, the silicone transanal tube NO COIL[®], 60-80 mm long, 2 mm thick with a calibre of up to 2 cm, was applied and secured to the perineal skin by two stitches, then removed on the seventh postoperative day if no signs of leakage occurred.

Results. The intraluminal rectal pressure with transanal tube was strongly reduced from $13.8 + 8.5$ mmHg to $4.8 + 3.7$ mmHg ($P < 0.01$). Nine patients (4.8%) developed an anastomotic leakage, 2 males and 7 females. In 10 patients, the transanal tube NO COIL[®] did not remain *in situ* for the planned seven days, and 18 patients suffered from ulcers in the perianal skin. Leakage subsided with conservative treatment in 4 patients, whereas 5 patients required loop colostomy. The stoma rate was 2.7%. No leakage-related deaths occurred, and overall mortality was 1.3%.

Conclusions. The transanal tube NO COIL[®] does not abolish the risk of anastomotic leakage but could be an alternative option to covering stoma after cancer proctectomy in selected patients. In our experience, this simple and cheap device could reduce the rate of stoma without leakage-related mortality. Further studies within a randomized controlled trial are required to better define our results.

Key words: anastomotic leakage, proctectomy, transanal tube.

Acknowledgments: The authors thank Caroline Oakley and Silvana Valerio for the assistance in preparation of the manuscript.

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Received February 23, 2011;
accepted March 14, 2012.