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PANDINI, LC. Summary, 2011;31(3):306-307.

Hjern F, Wolk A, Hakansson N. Smoking and the risk of diverticular disease in women. Br J Surg 2011;98(7):997-1002.

This retrospective study was conducted to investigate the association between smoking and colonic diverticular disease. In this study, 35,809 Swedish female smokers who were born between 1914 and 1948 were analyzed, and followed-up from 1997 to 2008. Relative risks (RRs) of symptomatic diverticular disease (resulting in hospital admission or death) related to smoking were estimated by specific statistical models. Out of the 35,809 women in this study, 561 (1.6%) presented symptomatic diverticular disease. In a multivariable analysis, smokers have an increased risk for symptomatic diverticular disease (perforation and abscess) compared to those who do not smoke, after adjustment as to age, fiber diet, diabetes, arterial hypertension and use of aminosalicylate, nonhormonal anti-inflammatory, corticosteroids, alcohol consumption, body mass index, physical activity and schooling. Former smokers also presented increased risk. The authors conclude that smokers are at high risk of developing symptomatic diverticular disease in comparison to those who do not smoke.

Noble EJ, Smart NJ, Challand C, Sleigh K, Oriolowo A, Hosie KB. Experimental comparison of mesenteric vessel sealing and thermal damage between one bipolar and two ultrasonic shears devices. Br J Surg 2011;98(6):707-800.

This study compared the sealing ability of mesenteric vessels with three devices in colorectal surgical specimens. The sealing instruments adopted were the electrothermal bipolar sealers (ligasure™) and two types of ultrasonic shear devices (Harmônico ACE® and Harmônico Lotus™). The surgical specimens submitted to colorectal laparoscopic resection were selected for each of the devices. After the removal of surgical specimens, eight or more mesenteric vessels were “ex vivo” dissected and sealed with the studied devices. Vessel sealing was tested for the maximum rupture pressure, and the depth of the thermal lesion was assessed by the pathologist. A total of 93 vessels from 18 selected patients were analyzed (Lotus™ n=33; harmônico ACE® n=30; ligasure™ n=30), with the average of 6 vessels (1 to 8) per surgical specimen, mean diameter of 1.06 (0.70) mm, and vascular wall thickness of 0.29 (0.19) mm. The mean pressure of vascular rupture was 1,170, 1,470 and 1,510, with Lotus™ , harmônico ACE® and ligasure™, respectively (p=0.058). The depth of the thermal lesion was significantly increased with ligasure™ (3.37) mm than with Lotus™ (2.18) mm or harmônico ACE® (1.95) mm (p<0.001). The authors conclude that the three instruments are equally good to seal vessels with pressure of vascular rupture that is higher than physiological values of blood pressure.

Maurer CA, Renzulli P, Kull C, Käser SA, Mazzucchelli L, Ulrich A, Büchler MW. The impact of the introduction of total mesorectal excision on local recurrence rate and survival in rectal cancer: long-term results. Ann Surg Oncol 2011;18(7):1899-906.

The objective of this retrospective study was to investigate the influence of the introduction of total mesorectal excision on local recurrence and survival rates of patients submitted to rectal cancer surgery. This study analyzed 171 patients submitted to

abdominoperineal amputation or anterior resection. Group 1 (1993-1995, n=53) consisted of patients who underwent conventional surgery, and group 2 (1995-2001, n=118) had patients who were submitted to total mesorectal excision. All surgeries were performed by the same team. All patients were followed-up for seven years or until death. Total local recurrence rate was 11 out of 53 (20.8%) in group 1, and 7 out of 118 (5.9%) in group 2. The isolated recurrence rates were 6 out of 53 (11.3%) in group 1, and 2 out of 118 (1.7%) in group 2. Both differences were statistically significant. The disease-free survival rates in groups 1 and 2 were 60.4 and 65.2% in 5 years, and 58.5 and 65.3% in 7 years, respectively. After the exclusion of patients with metachronous or synchronous distant metastasis, disease-free and cancer-specific survival rates were significantly higher in group 2. There were no significant differences in both groups as to global survival. The authors conclude that the introduction of total mesorectal excision resulted in the expressive reduction of local recurrence rates. Survival rates are mainly determined by the occurrence of distant metastasis, but total mesorectal excision has improved the survival of patients without the systemic disease.

Nicholson GA, Finlay IG, Diament RH, Molloy RG, Horgan PG, Morrison DS. Mechanical bowel preparation does not influence outcomes following colonic cancer resection. Br J Surg 2001;98(6):866–71.

The objective of this retrospective study was to compare long-term survival rates and surgical complications in patients who have or have not received mechanical bowel preparation for colon cancer surgery. This study analyzed 1,730 patients who underwent potentially healing colon cancer surgery. Out of the total, 1,460 patients (84.4%) had bowel preparation. The mean follow-up was 3.5 years (1-6,7). There was no statistical difference as to the complications in the postoperative period of 30 days and in survival rates of both groups. The authors conclude that postoperative complications or long-term survival rates were not better after the preoperative bowel preparation.

Frasson M, Garcia-Granero E, Roda D, Flor-Lorente B, Roselló S, Esclapez P, et al. Preoperative chemoradiation may not always be needed for patients with T3 and T2N+rectal cancer. Cancer 2011;117(14):3118-25.

The objective of this study was to assess the factors that influence the recurrence of patients with rectal cancer and clinical staging of T2 tumor and positive ganglia (cT2 N+) or (cT3NO/N+) who were submitted to radical surgery without preoperative chemoradiation. From 1997 to 2008, the authors staged 398 patients with rectal cancer in the preoperative period by using endorectal ultrasound and/or magnetic resonance. The analysis included 152 patients with cT2 NT, cT3 No or cT3 N+ rectal cancer who underwent radical surgery with total mesorectal excision and without preoperative chemoradiation. Macroscopic evaluation of total mesorectal excision and the resection of the lateral margin were determined. Factors that are potentially related to local recurrence (LR) were analyzed, such as disease-free survival (DFS) and cancer-specific survival (CSS). The results showed that, after the mean follow-up of 39 months, LR, DFS and CSS rates were 9.5, 65.4 and 77.8%, respectively. Rectal fascia compromise at preoperative staging was the only independent factor that influenced the increased risk of LR ($p=0.007$), lower DFS ($p=0.007$) and lower CSS ($p=0.05$). Local recurrence rate in five years for patients with and without a compromised resection of the lateral margin was 19.4 and 5.4%, respectively. The authors conclude the results in this study suggest that patients with rectal cancer who are clinically staged as T3 N+ or T2 N+, with free distal edge >2 mm for the rectal fascia, may undergo radical surgery with total mesorectal excision, in order to avoid preoperative chemoradiation.