Predicting outcome

DOP Session 6 – Predicting outcome

DOP046
A multicenter evaluation of clinical and surgical risk factors for anastomotic leak after restorative proctocolectomy with ileal pouch-anal anastomosis

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Background: Anastomotic leakage (AL) is one of the most feared complications after restorative proctocolectomy with ileal pouch-anal anastomosis (IPAA) that could negatively impact long-term patient outcome in pouch function and quality of life. Although previous studies have identified several risk factors for AL, predictive factors in the specific current IBD patient remain subject of debate. Since timely identification of high-risk patients could influence surgical decision-making and diminish the risk for complications, the aim of our study is to identify clinical and surgical parameters associated with AL.

Methods: Between September 1990 and April 2013, a total of 691 patients who underwent IPAA for IBD, dysplasia, or FAP were identified from prospectively maintained databases of 3 colorectal tertiary referral centres. Retrospective chart review identified data on demographic and surgical variables. AL was defined as any leak confirmed by either contrast extravasation on imaging or during re-laparotomy (leak grades B; drainage and C; re-laparotomy). Multivariate regression models were developed to identify risk factors for AL.

Results: A total of 691 patients (55.7% male) were included with a median age of 39 years (17–77). One hundred and two (14.8%) patients developed postoperative AL. Univariate analysis identified, age at surgery (>55 years), long-term disease course (>5 years), overweight (BMI >25), high ASA classification (>3), steroids (>20 mg), anti-TNF (<3 months preoperatively) and the combination of both therapies as risk factors. Surgical factors were multistaged procedures (primary IPAA vs subtotal colectomy with completion proctectomy and IPAA at a later stage), J-pouch and perioperative blood transfusion. Multivariate regression models demonstrated, long-term disease course (OR 2.01, 95% CI 1.27–3.19), high ASA score (OR 1.94, 95% CI 1.09–3.47) and a combination of anti-TNF and steroid treatment (OR 5.61, 95% CI 1.71–18.48) as independent preoperative risk factors for AL. The only surgical risk factor that was independently associated with decreased leak rate was subtotal colectomy with IPAA at a later stage (OR 0.53, 95% CI 0.33–0.846). Since a staged procedure was therefore considered as a confounding variable, subgroup analysis of patients with primary IPAA demonstrated that long-term disease course (OR 1.79, 95% CI 1.03–3.14) and a combination of anti-TNF and steroids (OR 3.96, 95% CI 1.15–13.77) remained independent preoperative risk factors.

Conclusions: Long-term disease course, high ASA score, and a combination of anti-TNF and steroid treatment within 3 months before IPAA surgery were all independent preoperative risk factors for AL. A staged procedure seems an appropriate strategy when these risk factors are identified.

DOP047
Is hospitalization predicting the disease course in UC? Prevalence and predictors of hospitalization and re-hospitalization in ulcerative colitis in a population-based inception cohort between 2000–2012

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Background: Limited data are available on the hospitalization rates in population-based studies. Since this is a very important outcome measure, the aim of this study was to analyze prospectively if early hospitalization is associated with the later disease course as well as to determine the prevalence and predictors of hospitalization and re-hospitalization in the population-based UC inception cohort in the Veszprem province database between 2000 and 2012.

Methods: Data of 347 incident UC patients diagnosed between January 1, 2000 and December 31, 2010 were analyzed (n=147, median age at diagnosis: 36, IQ: 26-50 years, duration: 7, IQR 4-10 years). Both in- and outpatient records were collected and comprehensively reviewed.

Results: Probabilities of first UC-related hospitalization and first re-hospitalization were 28.6%, 53.7%, 66.2% and 23.7%, 55.8% and 74.6% after 1, 5 and 10 years of follow-up in Kaplan-Meier analysis. Main reasons for first hospitalization were diagnostic procedures (26.7%), disease activity (22.4%) or UC-related surgery (4.8%), but the majority of the hospitalizations were unrelated to UC (44.8%). In Kaplan-Meier and Cox-regression analysis, disease extent at diagnosis (HR: 1.35, p = 0.018, HR:extensive: 1.79, p = 0.02 vs. proctitis) or at last follow-up (HR: 1.56, p = 0.001), need for steroids (HR: 1.98, p < 0.001), azathioprine (HR: 1.55, p = 0.038) and anti-TNF (HR: 2.28, p < 0.001) were associated with the risk of UC-related hospitalization. Early hospitalization was not associated with a specific disease phenotype, however 46.2% of all colectomies were performed in the year of diagnosis.

Conclusions: Hospitalization and re-hospitalization rates are relatively high in this population-based UC cohort. Early hospitalization was not predictive for the later disease course.

DOP048

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