Journal of Coloproctology
www.jcol.org.br

Original Article

Risk factors for postoperative endoscopic recurrence in Crohn's disease: a Brazilian observational study☆

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ARTICLE INFO

Article history:
Received 24 April 2014
Accepted 15 May 2014
Available online 14 June 2014

Keywords:
Crohn disease
Recurrence
Risk factors

ABSTRACT

Introduction: Postoperative endoscopic recurrence (PER) is the initial event after intestinal resection in Crohn's disease (CD), and after a few years most patients present with progressive symptoms and complications related to the disease. The identification of risk factors for PER can help in the optimization of postoperative therapy and contribute to its prevention.
Methods: Retrospective, longitudinal, multicenter, observational study involving patients with CD who underwent ileocolic resections. The patients were allocated into two groups according to the presence of PER and the variables of interest were analyzed to identify the associated factors for recurrence.
Results: Eighty-five patients were included in the study. The mean period of the first postoperative colonoscopy was 12.8 (3–120) months and PER was observed in 28 patients (32.9%). There was no statistical difference in relation to gender, mean age, duration of CD, family history, previous intestinal resections, smoking, Montreal classification, blood transfusion, residual CD, surgical technique, postoperative complications, presence of granulomas at histology, specimen extension and use of postoperative biological therapy. The preoperative use of corticosteroids was the only variable that showed a significant difference between the groups in univariate analysis, being more common in patients with PER (42.8% vs. 21%; $p = 0.044$).
Conclusions: PER was observed in 32.9% of the patients. The preoperative use of corticosteroids was the only risk factor associated with PER in this observational analysis.

☆ Study conducted at The Colorectal Surgery Unit, Hospital Universitário Cajuru (SeCoHUC), PUC-PR, Curitiba, PR, Brazil.

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http://dx.doi.org/10.1016/j.jcol.2014.05.003
2237-9363/

Fatores de risco para recorrência endoscópica pós-operatória na doença de Crohn: um estudo observacional brasileiro

Palavras-chave:
Doença de Crohn
Recorrência
Fatores de risco

R E S U M O

Introdução: Recorrência endoscópica pós-operatória (REP) é evento inicial após ressecções intestinais na doença de Crohn (DC) e grande parte dos pacientes progride com sintomas e complicações relacionados à doença em alguns anos. A identificação dos fatores de risco para REP pode auxiliar na otimização da terapia pós-operatória e contribuir para sua prevenção.

Método: Estudo retrospectivo, longitudinal, multicêntrico e observacional, realizado com pacientes portadores de DC, submetidos à ressecção ileocólica. Os pacientes foram alocados em dois grupos de acordo com a presença de REP e as variáveis de interesse foram analisadas a fim de se identificar os fatores associados à recorrência.

Resultados: Oitenta e cinco pacientes foram incluídos no estudo. O tempo médio da primeira colonoscopia pós-operatória foi de 12,8 (3-120) meses e REP foi observada em 28 pacientes (32,9%). Não houve diferença estatística entre os grupos em relação a gênero, média de idade, duração da DC, história familiar, ressecção intestinal prévia, tabagismo, classificação de Montreal, transfusão sanguínea, DC residual, técnica cirúrgica, complicações pós-operatórias, presença de granuloma, extensão do espécime e utilização de biológicos após a cirurgia. O uso pré-operatório de corticosteroides foi a única variável que apresentou significativa diferença na análise univariada, sendo mais frequente nos pacientes que apresentaram REP (42.8% vs. 21%, p = 0.044).

Conclusões: REP foi observada em 32.9% dos pacientes. A utilização pré-operatória de corticosteroides foi o único fator associado à REP nesta análise observacional.

Introduction

Despite the progress in the medical therapy of Crohn's disease (CD), with better results after the use of immunosuppressive drugs and antagonists of tumor necrosis factor alpha (anti-TNFs), about 70% of patients will require surgery throughout their lives, often due to complications associated with the disease, such as fistulae, abscesses and fibrotic strictures.[1–3] Once undergoing intestinal resection, these patients are at increased risk of future reoperations and 30–70% will require a new procedure in a 10-year interval.[1]

Postoperative recurrence can be defined by different findings, including clinical, endoscopic, histological, radiological and surgical Characteristics.[4] The time to recurrence follows a definite pattern, with endoscopic recurrence being a precursor of symptomatic (clinical) recurrence.[5] Upon endoscopic recurrence, about 20% of patients have concomitant clinical relapse within 1 year and above 50% at 5 years.[2,5,6]

Besides preceding the symptoms, the severity of endoscopic lesions predicts the likelihood of subsequent development of clinical recurrence and the need for another operation.[7] Accordingly, the use of the classification of endoscopic recurrence described by Rutgeerts et al.[8] plays an important role in the standardization of postoperative endoscopic findings.

Some publications have suggested the stratification of postoperative endoscopic recurrence (PER) risk, based on patient-related characteristics, on surgical findings and on the CD itself, in order to determine the best type of postoperative prophylaxis.[6,7] The factors commonly used for this stratification are those with the highest level of evidence: prior bowel resection, penetrating disease and smoking.[7,9,10]

In Brazil, there is scarce published data on factors associated with postoperative endoscopic recurrence. There is a need to determine which risk factors for PER recognized in the international literature can be applied to patients and at referral centers in our country, in order to properly stratify the risks of recurrence, with subsequent improvement in postoperative management.

Thus, the aim of this study was to examine rates of PER and determine which risk factors would be associated with its occurrence in a cohort of Brazilian patients undergoing ileocolic resections for CD.

Method

This study was approved by the Ethics Committee on Research, Center for Bioethics, Pontifícia Universidade Católica do Paraná (PUCPR), based on Opinion of Presentation Certificate for Ethics Assessment (CAAE) nr. 19923413.1.0000.0020 (second version), performed by the *Plataforma Brasil* website.

This was a retrospective, longitudinal, multicenter, observational study involving patients with CD undergoing ileocolic resections in the period from January 2002 to December 2012, from four referral centers in the management of inflammatory bowel diseases (IBD) in southern and southeastern Brazil.