



REVIEW ARTICLE

Prevention of postoperative recurrence of Crohn's disease

E.S. van Loo^{a,*}, G. Dijkstra^b, R.J. Ploeg^c, V.B. Nieuwenhuijs^c

^a Department of Surgery, Scheper Ziekenhuis Emmen, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands

^b Department of Gastroenterology, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands

^c Department of Surgery, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands

Received 26 June 2011; received in revised form 4 December 2011; accepted 5 December 2011

KEYWORDS

Crohn;
Recurrence;
Surgery;
Postoperative

Abstract

Background: Up to 75% of patients with Crohn's disease (CD) will have intestinal resection during their life. Most patients will, however, develop postoperative recurrence (endoscopic, clinical or surgical). Several medical and surgical strategies have been attempted to prevent postoperative recurrence. This review evaluates the efficacy of different drug regimens and surgical techniques in the prevention of clinical, endoscopic and surgical postoperative recurrence of CD.

Methods: A literature search for randomized controlled trials on medical or surgical interventions was performed. The endpoints for efficacy were clinical, endoscopic and surgical recurrence. Meta-analyses were performed in case two or more RCTs evaluated the same drug or surgical technique.

Results: Mesalamine is more effective in preventing clinical recurrence than placebo ($P=0.012$), as well as nitroimidazolic antibiotics at one year follow-up ($P<0.001$) and thiopurines ($P=0.018$). Nitroimidazolic antibiotics are also more effective than placebo in preventing endoscopic recurrence ($P=0.037$), as well as thiopurines ($P=0.015$) and infliximab ($P=0.006$). Budenoside, probiotics, Interleukin-10 nor any of the different surgical procedures showed any significant difference compared to placebo in postoperative recurrence rates of CD.

Conclusion: Among the different drug regimens and surgical techniques, only thiopurines and nitroimidazolic antibiotics are able to reduce postoperative clinical as well as endoscopic

Abbreviations: CD, Crohn's Disease; CDAI, Crohn's disease Activity Index; CI, Confidence Interval; IL-10, Interleukin-10; E–E, End-to-end; S–S, Side-to-side; S–E, Side-to-end; LoE, Level of Evidence; GoR, Grade of Recommendation.

* Corresponding author at: University Medical Center Groningen, Hanzeplein 1, 9700 RB Groningen, P.O. Box 30.001, The Netherlands. Tel.: +31 50 3612896; fax: +31 50 3611745.

E-mail address: e.s.van.loo@umcg.nl (E.S. van Loo).

recurrence of CD. Mesalamine and infliximab also seem to be superior to placebo in preventing clinical recurrence and endoscopic recurrence, respectively. There is a paucity of trials evaluating long-term follow-up and prevention of surgical recurrence of CD.

© 2011 Published by Elsevier B.V. on behalf of European Crohn's and Colitis Organisation.

Contents

1. Introduction	638
2. Methods	639
2.1. Literature search	639
2.2. Outcome measures	639
2.3. Statistical methods	639
3. Results	640
3.1. Methodological quality of included studies	640
3.2. Drugs	640
3.2.1. Mesalamine	640
3.2.2. Metronidazole/ornidazole	640
3.2.3. Thiopurines (azathioprine and 6-mercaptopurine)	641
3.2.4. Budenoside	642
3.2.5. Probiotics	642
3.2.6. Interleukin-10 (IL-10)	642
3.2.7. Infliximab	642
3.3. Surgical procedure	643
3.3.1. Length of resection margin	643
3.3.2. Type of anastomosis	643
3.3.3. Laparoscopic vs. open resection	643
4. Discussion	643
4.1. Practical guidelines	644
Conflict of interest	645
References	645

1. Introduction

Crohn's disease (CD) is a chronic inflammatory bowel disease (IBD) that can affect any part of the gastrointestinal tract. Most commonly it involves the terminal ileum and proximal colon. Genetic and environmental factors play a role in its etiology and pathogenesis.^{1–3} The most common age at time of diagnosis is usually during late adolescence and early adulthood, although CD can appear at almost any age. Most patients are diagnosed before the age of 40 years.^{4,5} Overall, the incidence of CD is approximately 5–10 per 100,000 per year with a prevalence of 50–100 per 100,000.^{1,2,4}

The clinical course of CD is characterized by exacerbations and remissions. Eventually, recurrent inflammation can cause bowel strictures, fistulae (often perianal) or abscesses. Extraintestinal manifestations most commonly involve the skin, eyes, joints and biliary tract.^{2,4,5}

Medical management of CD is a rapidly evolving field, with many new biologicals under investigation. There are multiple medical treatments that proved to be effective in inducing clinical response and remission. The appropriate choice for medication not only depends on the activity, location and behavior of the disease, but is also influenced by the balance between drug potency and side effects; previous response to treatment and the presence of extraintestinal manifestations, or complications.^{4,6} Operative management can be effective

in managing disease complications and improving quality of life.⁷ Eventually, around 75–80% of the patients will end up with a surgical resection.^{6,8–15} Surgery, however, does not eliminate the pathogenic process, as most patients develop recurrence of disease.^{8,11,13,16–18} Although a wide range of postoperative recurrence rates has been reported according to the definitions of recurrence (clinical, endoscopic or surgical recurrence), there is common agreement that recurrence rate steadily increases with time, reaching approximately 50% at 20 years after surgery.¹⁸ Clinical postoperative recurrence rates have been recorded between 17–55% at 5 years, 32%–76% at 10 years and 72% at 20 years, whereas postoperative surgical recurrence rates are 11%–32% at 5 years, 20%–44% at 10 years and 46%–55% at 20 years.¹⁴

Several studies have reported about prognostic factors for postoperative recurrence of CD. To date, only smoking is convincingly associated with a higher risk of recurrence.^{12–15,19,20} The identification of such risk factors is very important to select patients who may benefit from pro-active preventive measures.

Several medical and surgical strategies have been attempted to prevent postoperative recurrence. Most studies, however, only evaluate clinical and/or endoscopic recurrence. Little is known about the incidence of surgical recurrence. Therefore, this review focuses on the efficacy of different medication regimes and surgical procedures in the

Download English Version:

<https://daneshyari.com/en/article/6100553>

Download Persian Version:

<https://daneshyari.com/article/6100553>

[Daneshyari.com](https://daneshyari.com)