Original Article

Capsula Eburnea
a multidisciplinary biomedical journal for young doctors

DILATION TREATMENT OF BENIGN STRICTURED OF COLOCOLONIC ANASTOMOSES

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Abstract

The aim of this study was to assess intestinal symptoms, compliance, and health-related quality of life in the endoscopic dilation of benign anastomotic colo-rectal or colo-colonic strictures. We show that the morbidity associated with endoscopic dilation is low. Endoscopic dilation with a balloon has proved to be safe and simple to perform, and allowed us to obtain good short-term clinical results. Treatment of benign anastomotic strictures by standard endoscopic dilation contributes to impair gastrointestinal symptoms. The standard criteria used to define successful dilatation anastomosis (10-13 mm in diameter) are sufficient for an optimal and diffuse result. Nevertheless, randomized controlled trials are necessary for comparing gastrointestinal symptoms and quality of life index after stricture dilation.

Keywords: anastomosis stricture, colonoscopy, endoscopic balloon dilation.

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Received: May 19th, 2009
Revised: June 9th, 2009
Accepted: June 11, 2009

Language of the Article: English.

No conflicts of interest were declared.

ISSN: 1970-5492

DOI: 10.3269/1970-5492.2009.4.13

Introduction

This study was designed to assess intestinal symptoms, compliance, and health-related quality of life in the endoscopic dilation of benign anastomotic colo-rectal or colo-colonic strictures. Initially, treatment for these strictures was only surgical. Nowadays endoscopic dilation techniques are the first-line treatment for benign anastomotic strictures.

Patients and Methods

From January 2005 to November 2008 nine patients who had undergone surgery for colorectal cancer were treated for a postoperative symptomatic stricture. Two patients had undergone a left hemicolectomy and seven an anterior resection. Stricture symptoms presented after a mean period of 7.7 months after colorectal surgery. The strictures had a diameter of less than 5.5 mm (ranging approximately from 3to 8 mm). The dilations were performed using a 20-30 mm pneumatic dilators. The clinical results were classified in relation to the abdominal symptomatology reported by the patients, and were evaluated in the short term (one week) and long-term (mean follow-up: 36 months).
Three of nine patients underwent a total of 22 dilating session. One patient a recurrence was diagnosed at the suture line. Two patients had a single dilating session. Four patients had a 5 dilating sessions.
Three complications were observed: one bowel perforation in the site of dilatation, one fever, and

CAPSULA EBURNEA, 4(13):1-3, 2009 Available on-line at: http://www.capsulaeburnea.org

one transient mucosal bleeding. In this late case there was only partial improvement. The first case required another type of treatment (was treated surgically with a bowel resection).
Immediate symptomatic relief was achieved in all cases. The symptoms caused by the strictures disappeared after the first session. Normal defecation was restored immediately in post treatment, and satisfactory good-long-term clinical results were achieved in eight patients (89%).

Discussion
Benign anastomotic strictures occur in up to 3-30% of patients after colorectal resections (1,2). These complications are more frequent with stapled compared to hand-sewn anastomoses (3,4), possibly perhaps because mucosal gaps and areas of necrosis induced by staples generate overactive inflammatory response and healing by secondary intention (5,6).
Despite this increased risk, the stapling technique remains diffusely used between colon and rectal surgery because it is quick and equivalent to manual suturing in terms of mortality, anastomotic leach, cancer recurrence and wound infection.
The endoscopic dilation has proven to be a valid therapeutic alternative to surgery for colonic strictures (7). It may be possible to avoid or postpone surgery (8). Most colectomies had been performed for benign diseases, with anastomoses located at the colorectal junction (5,7). Endoscopic balloon dilation is the first-line treatment for benign colorectal anastomotic strictures after colorectal anastomosis (5).
Health-related quality of life was significantly impaired in study patients *versus* surgical controls, and healthy subjects scores is positive. We aimed to objectively assess long-term results. The authors here evaluate retrospectively the short and long-term clinical result and satisfaction in such patients by colonic dilation.
An anastomotic diameter over 10-13 mm, commonly used to define a successful endoscopy, is sufficient provide long-term symptom relief in some patients (5).
The morbidity associated with endoscopic dilation is low, and clinical success at 6-24 months has been reported in more than 90% of cases (9). In 20% of patients it may be a serious state that may require repeated catheter balloon dilations or surgery (10).

Conclusion
Endoscopic dilation with a balloon has proved to be safe and simple to perform, and allowed us to obtain good short-term clinical results. In this study population dilation with balloon may be considered the first-line therapeutic approach safe and effective treatment for symptomatic benign anastomotic strictures after colorectal resection surgery for adenocarcinoma. It may be possible to avoid surgery. All successfully treated patients required no more than five dilatations.
In conclusion, treatment of benign anastomotic strictures by standard endoscopic dilation may contribute to impair gastrointestinal symptoms. The standard criteria used to define successful dilatations anastomosis (10-13 mm in diameter) are sufficient for an optimal and diffuse result. These conditions depend on diverse factors studied. Nevertheless, randomized controlled trials are necessary for comparing gastrointestinal symptoms and quality of life index after stricture dilation.

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DILATAZIONE ENDOSCOPICA DELLE STENOSI COLICHE BENIGNE POST-ANASTOMOTICHE

Scopo di questo articolo è di mettere in luce la *compliance*, i benefici ed il miglioramento della qualità della vita, nei soggetti affetti da stenosi benigna post-anastomotica colo-colica e colo-rettale e trattati con dilatazione endoscopica del tratto stenotico. I nostri risultati mostrano che la morbilità associata alla dilatazione endoscopica delle stenosi benigne post-anastomotiche colo-coliche o colo-rettali è bassa. La dilatazione per via endoscopica appare essere sicura e di semplice esecuzione e permette di ottenere risultati soddisfacenti anche per periodi prolungati. I criteri standard per una efficace dilatazione variano intorno ai 10-13 mm di diametro ottenuto e ciò garantisce una soddisfacente canalizzazione dei pazienti. Pur tuttavia altri trials clinici randomizzati appaiono necessari per comparare i benefici gastro-intestinali raggiunti con la dilatazione intestinale raggiunta.

Keywords: stenosi coliche post-anastomotiche, colonscopia, dilatazione endoscopica con pallone.

CAPSULA EBURNEA, 4(13):1-3, 2009