

Spontaneous Closure of Colostomy: Case Report

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Abstract

Intestinal loop stoma is a common surgical procedure performed for various benign and malignant abdominal problems, but it rarely undergoes spontaneous closure, without surgical intervention. A male patient presented to our emergency surgical department with acute abdominal pain. He was diagnosed as having rectosigmoid perforation and underwent diversion sigmoid loop colostomy after primary closure of the perforation. To our surprise, the loop colostomy closed spontaneously at 13 months, without any consequences. Spontaneous stoma closure is a rare and interesting event. The exact etiology for spontaneous closure remains unknown, but it may be hypothesized to result from slow retraction of the stoma.

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I. Introduction

Intestinal stoma is an artificial opening made in the small bowel or colon to divert flatus, faeces or urine outside the abdomen, where they are collected in external appliances [1].

Stomas can be temporary or permanent, depending on the purpose for which the diversion has been created. The most common indications are to protect a distal gastrointestinal anastomosis, to relieve a benign or malignant obstruction, or to control sepsis related to a perforation [2]. Once the indication is fulfilled, after the desired period of time, temporary stomas are closed surgically.

Spontaneous closure of a stoma without surgical intervention is a rare entity. We present herein an interesting case of spontaneous closures of a colostomy[3]

II. Case Report

A 35 years old gentleman presented to surgical emergency with pain in the lower abdomen for 10 days, constipation and fever of 3 days duration. 3 days back history of enema given from outside hospital. Clinical examination showed tachycardia of 106beats/ min and blood pressure of 110/70mmHg. Abdominal examination revealed abdominal distension with lower abdominal tenderness. Digital rectal examination was unremarkable. Xray abdomen erect AP suggestive of pneumoperitoneum . ultrasound whole abdomen suggestive of moderate collection in abdomen and in pelvic cavity representative of intestinal perforation. The patient underwent emergency exploratory laparotomy with sigmoid colostomy with repair of anterior upper one third rectal perforation in double layers under GA on 28/12/2019. Intraoperative findings revealed 1 litre of purulent fluid in the pelvis and a 1×1cm perforation at the upper one third rectum on its anterior wall, with oedematous and thickened bowel wall. The perforation was closed with absorbable interrupted sutures. A proximal sigmoid loop colostomy was carried out. The perforation margin biopsy revealed non-specific inflammation. At a 1-month follow-up visit, the stoma was functioning.

The patient also had a retracted but well-functioning stoma, without any complaints. Due to lack of follow up patient visited the outpatient department after 13 months exhibiting complete closure of the stoma, while passing stools rectally without any difficulty. Also the complete epithelialization of the stoma site was noted (Figure 1).



FIGURE – 1



FIGURE- 2

III. Discussion

Spontaneous stoma closure can be explained by the mechanism of stoma retraction. In the spontaneous colostomy closure patient, it was the late retraction which added tension on the stoma, leading to gradual retraction with apposition and later fusion of the anterior stoma opening without any consequence. This led to gradual retraction of the stoma and spontaneous complete closure of the colostomy [4]. Another possible mechanism to explain this phenomenon may be seen as spontaneous closure of an enterocutaneous fistula; stomas are iatrogenic enterocutaneous fistulae. With conservative management, 19–92% of post-operative fistulae heal spontaneously, as long as there is no distal obstruction, the bowel is not diseased and the patient is in an anabolic state [5]. Even the more complex enteroatmospheric fistula, which occurs in the setting of open abdomen, has been reported to heal spontaneously with conservative management [6,7]. So, in the present case—considering the beneficial effects of retraction of stoma, with the concept of spontaneous healing of enterocutaneous fistula due to lack of follow up since 1 year—the possible mechanism of spontaneous closure of stoma may be correlated and explained.

To summarize, spontaneous closure of a stoma is a rare event. The exact mechanism leading to closure is poorly understood; further studies, perhaps animal-based, may be required to obtain insight into the probable mechanism.

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