

# Parastomal Necrotizing Fasciitis Due to Colonoscopy

## *Kolonoskopiye Bağlı Parastomal Nekrotizan Fasiit*

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### ÖZET

Nekrotizan yumuşak doku enfeksiyonları, yumuşak doku kompartmanında yer alan tüm tabakaları etkileyebilen harabedici enfeksiyonlardır. Peri-stomal cilt irritasyonu veya soyulması ile kıyaslandığında parastomal nekrotizan fasiit çok nadir bir stoma komplikasyonudur. Bu yazımızda kolonoskopiye bağlı parastomal nekrotizan fasiit gelişen bir olgu sunulmakta, cerrahi tedavi ve yara bakımı yönetimi tartışılmaktadır.

**Anahtar Kelimeler:** Stoma komplikasyonu, Nekrotizan fasiit

### ABSTRACT

Necrotizing soft tissue infections (NSTIs) are devastating infections that can effect all the layers within the soft tissue compartment. Parastomal necrotizing fasciitis is a very rare stoma complication when compared with peri-stomal skin irritation or excoriation. In this report a patient who has developed parastomal necrotizing fasciitis due to colonoscopy is presented, and surgical treatment and wound care management is discussed.

**Key words:** Stoma complication, Necrotizing fasciitis

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### Introduction

Necrotizing soft tissue infections (NSTIs) can be defined as infections of any of the layers within the soft tissue compartment (dermis, subcutaneous tissue, superficial fascia, deep fascia, or muscle) that are associated with necrotizing changes. Despite the development of various classification systems and progress in surgical management, NSTIs continue to have high mortality and morbidity rates and pose enormous diagnostic and therapeutic challenges.<sup>1</sup> Peri-stomal skin irritation and excoriation are well documented stoma complications, but not necrotizing fasciitis.<sup>2</sup> Here we present a very rare complication, parastomal necrotizing fasciitis.

### Case Report

A 39-years-old male patient who had previously undergone a Mile's operation, admitted with abdominal pain, and erythema, pus and discharge through the parastomal site (Figure 1).

In his story we detected that he applied two tubes of enema via stoma, 7 days ago for mechanical bowel preparation for his routine 5 year surveillance colonoscopy. In physical examination there were peritoneal irritation findings, so patient was taken to the operating room with a provisional diagnosis of strangulated parastomal hernia. A midline incision was made, dissection was advanced to the parastomal site through the abdominal fascia, but a parastomal hernia could not be detected. The site around the stoma was affected of NSTI (Figure2).

A decision of exploration of abdominal cavity was made,



*Figure 1. Erythema, pus and discharge through the parastomal site.*



*Figure 2. Peristomal view of the wound.*

but there was not an infectious focus. Parastomal infected soft tissue was debrided. Following debridement, wound was treated with Vacuum Assisted Closure (VAC) therapy (Figure 3). VAC was changed every 48 hours, after 3 sessions tertiary wound closure was performed. The patient was discharged next day of wound closure and he is alive with no sign of NSTI or cancer.

### Discussion

First described more than a century ago, NSTIs continue to cause high mortality and morbidity.<sup>1</sup> The best approach in the management of this devastating condition is early diagnosis, adequate antibiotic treatment and radical surgical procedures, which may often need to be repeated several times.<sup>3</sup>

The formation of a stoma is one of the easiest bowel procedures for a surgeon to perform, but when it is not formerly performed, patients can face many



*Figure 3. View after parastomal debridement.*

complications. Stoma complications are often classified as early and late. The well-recognized complications include stenosis, retraction, hernia, prolapse, skin excoriation and poor location as well as leakage, soiling, night time emptying and odour.<sup>2</sup> Parastomal necrotizing fasciitis is a rare complication. To the best of our knowledge, it had been described just in 3 other cases previously.<sup>3-5</sup> However, none of them seemed to be associated with enema or colonoscopy. It is not clear which was responsible for the initiation of NSTIs in our case, enema or colonoscopy; however, it was obvious that one of them caused small perforation through the stoma wall beneath skin level which probably turned

into NSTIs.

Clinicians should be aware of this rare complication and act quickly when signs of peristomal inflammation occurs following any disturbing procedure is applied to the stoma. NSTI can rapidly progress into a life threatening condition therefore prompt and rapid radical surgical debridement is mandatory in the treatment of NSTIs. VAC treatment should facilitate wound healing and patient compliance. Nevertheless, best treatment is protection, so any kind of physical insertion to the stoma such as enema or endoscopy should be done with great care.

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