



# Journal of Coloproctology

www.jcol.org.br



## Case Report

# Retroperitoneal abscess after transanal minimally invasive surgery: case report and review of literature<sup>☆</sup>

Aaron Raney<sup>b</sup>, Shankar Raman<sup>a,\*</sup>

<sup>a</sup> Mercy Surgical Affiliates, Des Moines, United States

<sup>b</sup> Des Moines University, Des Moines, United States

### ARTICLE INFO

#### Article history:

Received 2 April 2017

Accepted 19 June 2017

Available online xxx

#### Keywords:

Colorectal surgery

Transanal minimally invasive surgery (TAMIS)

Retroperitoneal abscess

Natural orifice transluminal endoscopic surgery (NOTES)

Single-site laparoscopic surgery (SILS)

Surgical oncology

### ABSTRACT

Abscesses are a rare complication of transanal minimally invasive surgery and transanal endoscopic micro surgery. Reported cases have been in the rectal and pre-sacral areas and have been managed with either antibiotics alone or in conjunction with laparotomy and diverting colostomy. We report a case of a large retroperitoneal abscess following a Transanal minimally invasive surgery full thickness rectal polyp excision. The patient was successfully managed conservatively with antibiotics and a percutaneous drain. Retroperitoneal infection should be included in a differential diagnosis following a Transanal minimally invasive surgery procedure as the presentation can be insidious and timely intervention is needed to prevent further morbidity.

© 2017 Sociedade Brasileira de Coloproctologia. Published by Elsevier Editora Ltda. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

### Abscesso retroperitoneal após cirurgia de ressecção transanal minimamente invasiva: relato de caso clínico e revisão a literatura médica

### RESUMO

Os abscessos são uma complicação rara da cirurgia de ressecção transanal minimamente invasiva (TAMIS) e da micro cirurgia endoscópica transanal (TEMS). Os casos notificados foram nas áreas rectal e pré-sacral e foram administrados com antibióticos isoladamente ou em conjunto com laparotomia e desvio de colostomia. Relatamos um caso de grande abscesso retroperitoneal após uma excisão de pólipos rectal de espessura total TAMIS.

#### Palavras-chave:

Cirurgia colorretal

Cirurgia de ressecção transanal minimamente invasiva (TAMIS)

Abscesso retroperitoneal

<sup>☆</sup> Paper developed at Mercy Medical Center, Department of Surgery, Des Moines, United States.

\* Corresponding author.

E-mail: [SRaman108@gmail.com](mailto:SRaman108@gmail.com) (S. Raman).

<http://dx.doi.org/10.1016/j.jcol.2017.06.007>

2237-9363/© 2017 Sociedade Brasileira de Coloproctologia. Published by Elsevier Editora Ltda. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Cirurgia endoscópica  
transluminal de orifício natural  
(NOTES)  
Cirurgia laparoscópica de único  
local (SILS)  
Oncologia cirúrgica

O paciente foi tratado com sucesso com a administração de antibióticos e drenagem percutânea. Para prevenir mais morbidade é necessária incluir a infecção retroperitoneal no diagnóstico diferencial após um procedimento TAMIS onde a apresentação pode ser insidiosa e a intervenção atempada.

© 2017 Sociedade Brasileira de Coloproctologia. Publicado por Elsevier Editora Ltda. Este é um artigo Open Access sob uma licença CC BY-NC-ND (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

## Introduction

Transanal minimally invasive surgery (TAMIS) is a recently developed surgical approach first described in 2010 by Atallah et al.<sup>1</sup> It is a form of natural orifice transluminal endoscopic surgery (NOTES) that is an alternative to the previously developed transanal endoscopic micro surgery (TEMS) technology. In contrast to TEMS, TAMIS utilizes ordinary laparoscopic instruments instead of TEMS specific instruments. Though there have been no extensive comparative studies, TAMIS platform has been quickly adopted due to decreased upfront cost, readily accessible instruments, and faster learning curve.<sup>1,2</sup> A single-incision laparoscopic surgery (SILS) port, adapted for transanal use (SILS™ Port, Covidien, Dublin, Ireland) or a specific transanal platform (GelPOINT® Path Transanal Access Platform, Applied Medical, Rancho Santa Margarita, CA, USA), is placed and secured in the anus.<sup>1</sup> Standard laparoscopic instruments are then placed through this port and allow for conventional laparoscopic dissection.<sup>2</sup> Pneumorectum allows for adequate visualization and the shorter TAMIS platform provides advantageous working angles within the rectum as well as circumferential dissection without patient re-positioning.<sup>2,3</sup> Furthermore, the soft platform has the theoretical advantage of better functional outcomes due to less traction on the anal wall.<sup>2</sup>

TAMIS has proven to be an effective platform for R0 local resection of benign neoplasia and early rectal cancer.<sup>2</sup> Reported procedure specific complications have been primarily bleeding, peritoneal entry, and rectal abscess.<sup>3-5</sup> The true incidence of post-TAMIS abscesses is not well known and there has not been a large retroperitoneal abscess documented. We report a case of an extensive retroperitoneal abscess formation following a TAMIS procedure without peritoneal entry. This was managed nonoperatively with antibiotics, and percutaneous drainage.

## Case presentation

A 62-year old male, with a history of colonic polyps, underwent a colonoscopy where he was noted to have a large rectal polyp located in the left posterolateral position, starting just above the level of the dentate line and measuring 4 cm × 3 cm, extending cranially to just above the level of the anorectal ring (Fig. 1). His medical history was significant for well-controlled diabetes mellitus type II, (HemoglobinA1c – 5.7%), hypertension, and nephrolithiasis. On digital rectal exam, this felt as a soft fleshy polyp located about 3–4 cm from the anal verge. Pre-operative biopsies showed tubulovillous

adenoma and MRI and endorectal ultrasound indicated possible T2N0 lesion. In view of these findings, the patient underwent TAMIS with full thickness excision of the polyp. He received preoperative mechanical bowel prep with PEG-3350 (Braintree Laboratories Inc, Braintree, MA, USA) without oral antibiotics. 1 g of Ertapenem was given IV as antibiotic prophylaxis, 15 min before start of the procedure. The patient was placed in the left lateral position and pneumorectum was established up to 15 mmHg using CO<sub>2</sub> insufflator (Stryker, Kalamazoo, MI, USA). The wound was closed with 2-0 V-Loc™ wound closure device (Covidien, Dublin, Ireland) on both the anterior and posterior aspects, leaving the central most portion open to avoid excessive tension. Operating time was 94 min and the procedure was uneventful. There was no intraoperative contamination of the operative site. There was no entry into the peritoneal cavity as this was a low-lying lesion. Final pathologic results showed a tubulovillous adenoma 3.7 cm × 3.2 cm in dimension with focal high-grade dysplasia and negative margins. The patient tolerated the procedure well and was discharged on the first post-operative day.

On postoperative day five, he presented to the emergency room with worsening left lower quadrant abdominal pain radiating to his back. He had no rectal pain. A non-contrast CT scan of his abdomen and pelvis, performed due to history of nephrolithiasis, showed inflammatory stranding as well as extraluminal air in the pelvis and left lower quadrant without any focally drainable fluid collections. The patient was afebrile and hemodynamically stable without leukocytosis or lactic acidosis. Bowel rest and empiric antibiotics were initiated. Blood cultures were negative. The patient's pain improved and his white count remained normal. However, he developed low-grade fevers. Therefore, a CT scan with contrast was repeated 48 h after re-admission (post-operative day seven). It demonstrated increased emphysematous collections. Extraluminal gas was located adjacent to the medial aspect of the descending colon. Additional gas was seen in the retroperitoneum, anterior to the left psoas muscle and extending caudally and medially into the pre-sacral region and adjacent to the rectum on the left. There was no free peritoneal air. There was also new fluid associated with the air adjacent to the psoas with the greatest collection measuring 10 cm × 4.1 cm transaxially and 9 cm craniocaudally (Fig. 2). Due to progression of infectious process, antibiotics were escalated. The retroperitoneal fluid collection was drained by CT-guided percutaneous placement of 12-French pigtail anterior to the left psoas and returned air and cloudy fluid. Drain cultures grew moderate growth of *Escherichia coli* and *Pseudomonas aeruginosa*, light growth of *Bacteroides thetaiotaomicron*, and rare growth of *Enterococcus* species. Antibiotics were adjusted to

Download English Version:

<https://daneshyari.com/en/article/8834465>

Download Persian Version:

<https://daneshyari.com/article/8834465>

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