

Transanal total mesorectal excision (TaTME) of a low rectal cancer using transanal minimally invasive surgery

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Ceylon Medical Journal 2017; 62: 244-45
DOI: <http://doi.org/10.4038/cmj.v62i4.8577>

Introduction

Transanal minimally invasive surgery (TAMIS) offers significant advantages in achieving oncological, anal sphincter-sparing resections. It now facilitates total mesorectal excision (TME) via the transanal approach. We present the first such TAMIS TaTME which was done in Sri Lanka.

Case History

The patient was Mrs. L, a 69 year old patient with a non-metastatic 3cm long adenocarcinoma of the rectum located 5cm from the anal verge and involving approximately 30% of the rectal circumference. She underwent neoadjuvant chemoradiation due to a threatened circumferential resection margin on magnetic resonance imaging (MRI), followed by a low anterior resection with TaTME.

Operative procedure

The abdominal component of the operation was done laparoscopically. The pelvic dissection was commenced in the mesorectal plane and advanced circumferentially up to the mid-rectum.



Figure 1. TAMIS port components



Figure 2. Configuration with the Gel Point Path™ applied trans-anally

TAMIS procedure

The Lithotomy position and a Lone Star™ retractor system was used to facilitate access to the ano-rectum. A purse-string suture was applied to the mucosa, below the tumor and above the dentate line. The GelPOINT® Path trans-anal access platform (Applied Medical, Rancho Santa Margarita, CA, USA) was used (Figure 1).

The port sleeve was applied and one 10mm camera port and two 5mm working ports were introduced via the gel port (Figure 2).

An 18mmHg CO₂ pneumo-rectum was established and the laparoscopic camera and instruments were introduced. Diathermy was used to dissect circumferentially into the submucosal plane under magnified direct vision. Diathermy and ultrasonic energy were then combined to advance the dissection through the rectal wall and into the mesorectal plane until it met with the laparoscopically dissected plane (Figure 3).

Bowel continuity was achieved with a 29mm circular stapler. The anastomosis was protected with a loop ileostomy.

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Figure 3.View from the within the TAMIS port

Comments

Systematic reviews are confined to case reports and series which report that TaTME achieves comparable technical success with acceptable oncologic and perioperative outcomes in comparison to laparoscopic TME [1, 2]. The COLOR III randomized control trial data is pending [3].

Conflicts of interest

Authors declare that they have no conflicts of interest.

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