

# Use of transanal minimal invasive surgery (TAMIS) approach for endoscopic transanal resection of tumour (ETART) in rectum: a technical note

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## BACKGROUND

Due to associated mortality and morbidity of radical resection of rectum for large adenomas and early rectal cancer (T1 and T2), the use of local minimally invasive techniques such as transanal excision, transanal endoscopic microsurgery, endoscopic mucosal resection, submucosal dissection and transanal minimal invasive surgery (TAMIS) are gaining popularity likewise between surgical fraternity and colorectal patients. TAMIS, a relatively innovative modality facilitates excision of lesions not otherwise amenable to standard transanal excision, thereby extending its utility for polyps of the middle and upper rectum. TAMIS provides enhanced visualization and precise excision, leading to shorter hospital stay and low morbidity and mortality. authors advanced this approach to next level by using the same method for endoscopic transanal resection of tumour (ETART) in the rectum.

## OBJECTIVE

The aim of this article is to discuss and report a case of lower rectal cancer undergoing endoscopic transanal resection of tumour (ETART) through transanal minimal invasive surgery (TAMIS) approach.

## METHODS

A technical note on the case report of ETART performed through TAMIS approach

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## CASE HISTORY

An 83-year old male presented to the colorectal clinic 4 years ago with history of loose motions and fresh bleeding per rectum. He underwent colonoscopy which revealed malignant tumour at 12 centimeter from the anal verge. his case was discussed at local colorectal cancer multidisciplinary weekly meeting and it was decided not to offer him radical resection in the form of anterior resection due to associated co-morbidity of recent CVA leading to hemiplegia and requiring percutaneous endoscopic gastrostomy for feeding, permanent suprapubic catheter and regular speech therapy. His other comorbidities included BPH, HTN & GORD. Patient underwent standard ETART with urological resectoscope twice in last 4 years. Recently he presented with another episode of LBO due to large rectal tumour. Due to difficulties in access, poor visualization and soiling caused by water leak with standard ETART instruments, authors employed TAMIS approach for ETART (Figure 1 and Figure 2). Multiple access port (GelPort®) was used for endo-anal access which improved visualization dramatically and secured a watertight device-anal placement. One port was utilized for camera access and remaining two ports were used for resectoscope, suction irrigation and various other maneuvers. The procedure involved removing small chunks of tumour tissue with each sweeping movement of resectoscopes under direct vision. Each quadrant of the tumour region was removed systematically without causing rectal perforation and uncontrolled bleeding. Once adequate luminal patency was achieved next quadrant was approached for trimming. Procedure was completed successfully without any operative or perioperative complication. Perioperative flexible sigmoidoscopy confirmed a wide and patent rectal lumen.

## FIGURE 1



Figure 1: TAMIS port (with 3 small ports) in situ prior to the start of ETART

## FIGURE 2

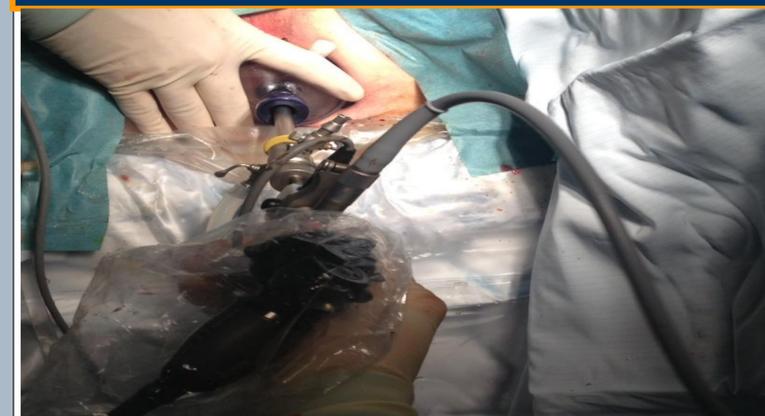


Figure 2: Use of urological resectoscopes through TAMIS port for ETART

## DISCUSSION

Use of TAMIS approach for ETART to remove lower rectal cancer for palliation can be technically very effective compared to conventional ETART due to the potential advantages of avoiding contaminant fluid spillage during ETART, easy access, better visualization compared to conventional ETART and being user friendly. The results from larger cohort of patient undergoing TAMIS ETART are required before recommending the routine use of this technique. However, until then this approach may be considered an alternative to conventional ETART.