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# The Use of the GelPoint Path<sup>R</sup> Access Channel for Rectal Trauma

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Extraperitoneal rectal injuries can be difficult to access for repair, and consequently many are diverted. Here the authors report a case of exsanguinating grade 1 rectal injury where repair was greatly facilitated by the use of the access channel component of the GelPoint Path<sup>R</sup>; a device designed for transanal excision of polyps. The patient has been consented for publication of the case.

A middle-aged male presented to the emergency department with rectal bleeding following self-digitation. At presentation, he was tachycardic and passing large clots of blood per rectum. A CT angiogram was performed which showed contrast extravastation within the lower rectum in keeping with active haemorrhage (**Figure 1**). There was no evidence of extra-luminal gas to suggest a full-thickness rectal injury. The patient was taken to theatre where flexible sigmoidoscopy demonstrated active arterial bleeding from a mucosal breach in the anterior wall of the lower rectum approximately 5 cm from the anal verge. To gain better access to the area of injury, only the access channel of the GelPoint Path<sup>R</sup> platform was inserted (**Figure 2**). This manoeuvre greatly facilitated direct suturing with interrupted 2.0 Vicryl<sup>R</sup>, which controlled the haemorrhage.

Extraperitoneal (EP) rectal injuries can be managed by proximal diversion, direct repair, or a combination of both. The current EAST (Eastern Association for the Surgery of Trauma) guidelines cautiously recommend proximal diversion for all EP rectal injuries, but most would interpret that this recommendation applies to full thickness injuries (American Association for the Surge of Trauma (AAST) grades II-V)<sup>1</sup>. Despite this, a review of 350 rectal trauma patients from an AAST multi-institutional study showed that 19% of 350 patients diverted for rectal trauma had a grade I injury<sup>2</sup>. The reasons for this are not stated. Access to lower third rectal injuries can be technically difficult but is feasible and without significant septic complications according to a small series by Gonzales *et al.*<sup>3</sup>. Although conservative management of low-grade rectal injuries is acceptable, the current case presenting with unrelenting haemorrhage excluded this as management option.

Transanal repair of EP rectal injuries is well described using standard proctologic equipment as well as vaginal speculum<sup>4</sup>, Transanal Microsurgery (or Stereoscopic) (TEMS)<sup>5</sup>, and endoscopically with Haemoclips<sup>6</sup>. There have been no published cases detailing the use of Trans Anal Minimally Invasive Surgery (TAMIS) for difficult-to-access low-rectal trauma. TAMIS is an established technique for the resection of rectal polyps, utilising a three-port

system of camera and two working ports, allowing direct suture of the post polypectomy defect with a technique akin to laparoscopic suturing. In our case, the access port for this system was placed in the anus and afforded sufficient view for repair without requiring the gelpoint and insufflation. The access channel is sutured into position and does not rely upon the steady hand of an assistant, nor does it exert undue stretch upon the anal sphincters. If the defect was not accessible, then the full Gelpoint Path<sup>R</sup> platform could potentially be utilised to repair such a defect, although the effects of insufflation on rectal injury remain undescribed. Based on the experience of this case, the authors would recommend considering the use of the TAMIS access channel to facilitate direct transanal repair of rectal injuries.

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Figure 1\_ANZJS\_Behrenbruch\_Rectal Trauma.png



Figure 2\_ANZJS\_Behrenbruch\_Rectal Trauma.png