Avoiding inferior epigastric artery damage at stoma formation

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COMMENT ON

KJ Edwards, SK Avula, BDH Babu, RA England. Inferior epigastric artery pseudoaneurysms. *Ann R Coll Surg Engl* 2015; **97**: 255–258.

Surgeons, patients and their lawyers loathe iatrogenic injury, especially if it could have been avoided, and so this review by Edwards *et al* on injury of the inferior epigastric artery (IEA) made an educational and enjoyable read. In the 19th century, the IEA was known as the arteria mortis or artery of death (not to be confused with the corona mortis, which is an anatomical variant of the obturator artery).

While 69% of the 32 cases reviewed occurred since 2000, we suspect that this may in part be because of 'newer' attempts in its management (embolisation and thrombin injection) have been described and not because the incidence is increasing. After all, the anatomical position of the artery has not changed for millennia. Although the causes of injury to the IEA do vary, it is at risk when raising a stoma, whether this is a defunctioning ileostomy or a permanent end colostomy. Indeed, we have all seen the IEA when raising a stoma through the belly of the rectus abdominis muscle and either need to ligate it or hope all remains well after pushing it aside!

However, since using the lateral rectus abdominis positioned stoma (LRAPS) technique to stoma formation (Fig 1),¹ we have not damaged or even seen the IEA, irrespective of its variable position (4cm or more from the midline) in over 150 patients. We believe we need to exploit the anatomy of the anterior abdominal wall as well

Figure 1 The LRAPS stoma trephine is lateral to the rectus abdominis muscle but still within the linea semilunaris of its sheath (right). The inferior epigastric artery (IEA), which runs through the belly of the muscle, is not in danger. Note that the trephine is also a little higher than usual to ensure it is above the arcuate line of Douglas. A standard stoma is shown on the left and may lead to IEA damage. (Reproduced from Stephenson *et al*,¹ with permission.)

as being vigilant following surgery (as stated by Edwards *et al*) as sometimes we may not be forgiven so easily.

Reference

1. Stephenson BM, Evans MD, Hilton J *et al*. Minimal anatomical disruption in stoma formation: the lateral rectus abdominis positioned stoma (LRAPS). *Colorectal Dis* 2010; **12**: 1,049–1,052.