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Value of Diagnostic and Therapeutic Laparoscopy for Abdominal Stab Wounds

Martin Brand

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I read with interest and would like to commend Lin et al. on their article [1]. They give an excellent description of how to perform a diagnostic laparoscopy in trauma, including therapeutic maneuvers and tips on how not miss injuries, specifically occult bowel perforations.

I have a few questions regarding the management algorithm of the two patient groups. Omental evisceration in a clinically benign abdomen is not an immediate indication for laparotomy [2, 3]. Peritonitis itself should have been included as a criterion leading to laparotomy in both groups. Why did bowel evisceration go to laparotomy in group B and not to laparoscopy? Were the surgeons involved able to repair bowel perforations?

The argument that non-therapeutic laparoscopy is less invasive than non-therapeutic laparotomy, though true, is not a reason to perform laparoscopy on all patients with penetrating trauma. I also question the very high rate of non-therapeutic laparotomy in group A (22/38). If they had no signs of peritonitis or bowel evisceration should they not have had radiological investigation and/or serial abdominal examinations in the ward?

Selective nonoperative management has been shown to be safe and effective [4]. Depending on the site of injury, radiological imaging may have been the more appropriate diagnostic tool. An example is the right upper quadrant. Most stable liver injuries can be managed conservatively [5]. Is it possible that laparoscopy may have been avoided in the 17 patients with liver injuries?

I think an interesting study from your institution would examine the use of therapeutic laparoscopy in hemodynamically stable patients following penetrating trauma that have peritonitis or CT scan evidence of significant injuries that in the past would have mandated a laparotomy.

References

1. Lin HF, Wu JM, Tu CC et al (2010) Value of diagnostic and therapeutic laparoscopy for abdominal stab wounds. World J Surg 34:1653–1662. doi:10.1007/s00268-010-0485-5
2. Da Silva M, Navsaria PH, Edu S et al (2009) Evisceration following abdominal stab wounds: analysis of 66 cases. World J Surg 33:215–219. doi:10.1007/s00268-008-9819-y
3. Arikan S, Kocakusak A, Yucel AF et al (2005) A prospective comparison of the selective observation and routine exploration methods for penetrating abdominal stab wounds with organ or omentum evisceration. J Trauma 58:526
4. Como JJ, Bokhari F, Chiu WC et al (2010) Practice management guidelines for selective nonoperative management of penetrating abdominal trauma. J Trauma 68:721–733
5. Demetriades D, Hadjizacharia P, Constantinou C et al (2006) Selective nonoperative management of penetrating abdominal solid organ injuries. Ann Surg 244:620–628

M. Brand (✉)
Department of Surgery, University of the Witwatersrand, Johannesburg 2109, South Africa
e-mail: martinbrand78@gmail.com