

Is laparoscopy still needed in blunt abdominal trauma?

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Abstract

Introduction: Laparoscopy, as a minimally invasive diagnostic and therapeutic tool in blunt abdominal trauma (BAT), is not commonly used and has been shown to be controversial. The aim of this study is to assess the role of laparoscopy in the diagnosis and therapy of BAT.

Methods: A systematic review and a comprehensive literature search was performed at the U.S. National Library of Medicine site in Medline and PubMed from January 2000 to 31 December 2007. This article attempts to outline the efficacy, the indications, contraindications, surgical technique and therapeutic possibilities of laparoscopy in BAT. Pediatric surgery articles and those addressing penetrating abdominal wounds, nontraumatic abdominal emergencies and iatrogenic injuries were excluded from this review.

Results: Sixty-six articles were reviewed, which included 22 case studies, 27 case reports, 17 reviews and 2 guidelines. The reviewed articles comprised 343 patients with BAT and laparoscopic approach. Therapeutic laparoscopy was possible in 168 cases (48,98%), 51 cases were converted (14,87%), overlooked injuries were absent, 6 patients had complications (1,75%), no mortality laparoscopy-related. The main indications for laparoscopy in BAT include the confirmation of suspected diaphragmatic defects, suspected hollow viscus and mesenteric injuries, in patients with inconclusive clinical exams and abdominal imaging. Diagnostic laparoscopy (DL) is also indicated in patients with suspected intra-abdominal injuries when advanced emergency imaging investigations are unavailable. Laparoscopy allows the surgeon to perform hemostasis, resections, suturing, autotransfusion, etc.

Conclusion: Although is not widely used, laparoscopy could still be useful in selected patients with BAT who have equivocal findings on clinical exam and imaging investigations in order to clarify the lesional diagnosis, thus avoiding unnecessary laparotomies. Multicenter prospective studies are needed to better assess the role of laparoscopy in blunt abdominal trauma.

Key words: blunt abdominal trauma, laparoscopy, diagnosis, therapy

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