



Trauma Laparoscopy: from Diagnose to Treatment

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Received: September 27, 2023

Published: October 01, 2023

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For a long time, trauma surgeons refused laparoscopy due to a lack of confidence in the method, difficulty of a hostile environment (blood, bile, enteric content, damaged tissue, etc), lack of technical skill, and lack of a 24-hour trauma team with trained personnel in laparoscopic procedures.

The last ten years have brought us significant contributions to the incentive of trauma laparoscopy, with better outcomes, minimal or no missed injuries, progressive low conversion rates [1], and increased confidence in the method, with experiences not only in blunt trauma but also in penetrating low and high energy in carefully selected patients [2].

If there is scientific evidence that supports trauma laparoscopy, why is it not widely used? After the 1990s, trauma laparoscopy received more publication, but there is a significant variety of issues analyzed among the considered studies, such as characteristics of the studied groups, indications for laparoscopy, trauma mechanisms, anatomical location of the lesions, location of the procedure, surgeon skill, and surgical technique. These variables are difficult to standardize or categorize for comparisons and quantitative studies [3]. This fact and the time-dependent learning curve of the technical skill and experience result in long time to achieve the autonomy that allows the surgeon to be comfortable [4].

As autonomy and experience are gained, diagnostic laparoscopy becomes an indication not only for diagnostic doubts (peritoneal perforation, free fluid with no evident peritonitis) [5], but also as a therapeutic tool. This advance could expand the indications for laparoscopy, offering the possibility of treating every injury, since

there is adequate material, an experienced surgeon, trained personnel, and a well-selected patient.

But the question isn't "who's doing it?" or "What's been done?" but "how are people doing it?" Transferring technical skills from open to laparoscopic surgery is extremely dependent on the injury, available material and trauma team.

As a result, clinical trials must continue, besides that, it's necessary to increase video publication, research focused not on "what to do", but on "how to do", increase information exchange among surgical societies and scientific journals, and provide more training (suture, surgical maneuver, dissection, and so on).

In the trauma context, trauma laparoscopy is a powerful tool for dealing with injuries that were previously an absolute or even relative indication for laparotomy. In selected patients and with a trained Trauma Team the diagnostic laparoscopy can be the first step in the evolution to therapeutic laparoscopy, a more complete minimally invasive treatment of the injured patient.

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