

Evaluation of laparoscopic versus open surgery for peritonitis and abdominal sepsis.

Anastasios Emmanuel*

Department of Surgery, Ioannina University School of Medicine, Ioannina, Greece

Introduction

Peritonitis and abdominal sepsis are critical conditions that require prompt and effective surgical intervention to improve patient outcomes. Over the years, laparoscopic surgery has gained popularity as an alternative to open surgery in the management of various abdominal pathologies. This article aims to evaluate the efficacy and safety of laparoscopic surgery compared to open surgery for the treatment of peritonitis and abdominal sepsis. A comprehensive review of existing literature, including randomized controlled trials, prospective and retrospective studies, and meta-analyses, was conducted. The analysis focused on various parameters such as surgical outcomes, postoperative complications, length of hospital stay, and overall patient recovery. The findings suggest that laparoscopic surgery demonstrates several advantages over open surgery in terms of reduced postoperative complications, shorter hospital stays, faster recovery, and improved cosmesis. However, patient selection, experience of the surgical team, and disease severity are crucial factors to consider when determining the most appropriate surgical approach. Overall, laparoscopic surgery appears to be a viable option in selected cases of peritonitis and abdominal sepsis, offering potential benefits for patients [1,2].

Peritonitis and abdominal sepsis are severe conditions characterized by the inflammation and infection of the peritoneal cavity, often resulting from various sources such as perforated hollow viscera, intra-abdominal abscesses, or anastomotic leaks. Prompt surgical intervention to control the source of infection and restore peritoneal homeostasis is crucial for improving patient outcomes. Traditionally, open surgery has been the standard approach for managing peritonitis and abdominal sepsis. However, advancements in laparoscopic techniques have revolutionized surgical practice, offering potential benefits in terms of reduced morbidity, faster recovery, and improved cosmesis. This article aims to evaluate the efficacy and safety of laparoscopic surgery compared to open surgery for the treatment of peritonitis and abdominal sepsis [3].

Numerous studies comparing laparoscopic and open surgery in the management of peritonitis and abdominal sepsis were identified. The analysis revealed that laparoscopic surgery demonstrated several advantages over open surgery. Firstly, laparoscopy resulted in reduced postoperative complications,

including wound infections, intra-abdominal abscesses, and respiratory complications. Secondly, laparoscopic procedures were associated with shorter hospital stays, allowing for faster recovery and reduced healthcare costs. Additionally, the laparoscopic approach offered improved cosmesis and patient satisfaction due to smaller incisions and decreased wound-related complications. However, it is important to note that laparoscopic surgery may not be appropriate in all cases, especially in patients with hemodynamic instability, extensive bowel necrosis, or severe sepsis. The experience and expertise of the surgical team in laparoscopic techniques also play a significant role in determining the feasibility and safety of the approach [4].

Laparoscopic surgery appears to be a promising alternative to open surgery in selected cases of peritonitis and abdominal sepsis. The evidence suggests that laparoscopy offers advantages such as reduced postoperative complications, shorter hospital stays, faster recovery, and improved cosmesis. However, careful patient selection, considering disease severity and stability, along with the experience of the surgical team, is crucial for achieving optimal outcomes. Further research, including large-scale randomized controlled trials, is warranted to strengthen the existing evidence and establish clear guidelines for the use of laparoscopic surgery in peritonitis and abdominal sepsis management [5].

References

1. Bloechle C, Emmermann A, Strate T, et al. Laparoscopic vs open repair of gastric perforation and abdominal lavage of associated peritonitis in pigs. *Surg Endosc.* 1998;12:212-8.
2. Targarona EM, Balague C, Knook MM, et al. Laparoscopic surgery and surgical infection. *Br J Surg.* 2000;87(5):536-44.
3. Geis WP, Kim HC. Use of laparoscopy in the diagnosis and treatment of patients with surgical abdominal sepsis. *Surg Endosc.* 1995;9:178-82.
4. Navez B, Tasseti V, Scohy JJ, et al. Laparoscopic management of acute peritonitis. *Br J Surg.* 1998;85(1):32-6.
5. Gomes CA, Sartelli M, Podda M, et al. Laparoscopic versus open approach for diffuse peritonitis from appendicitis etiology: A subgroup analysis from the Physiological parameters for Prognosis in Abdominal Sepsis (PIPAS) study. *Updates Surg.* 2020;72:185-91.

*Correspondence to: Anastasios Emmanuel, Department of Surgery, Ioannina University, Ioannina, Greece, E mail: emmanuel@anastasios.gr

Received: 04-Jul-2023, Manuscript No. AACRSIP-23-104890; Editor assigned: 06-Jul-2023, PreQC No. AACRSIP-23-104890(PQ); Reviewed: 20-Jul-2023, QC No. AACRSIP-23-104890; Revised: 24-Jul-2023, Manuscript No. AACRSIP-23-104890(R); Published: 31-Jul-2023, DOI:10.35841/aacrsip-7.4.155