

Is Laparoscopic Appendectomy Appropriate Treatment For Perforated Acute Appendicitis With Peritonitis?



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Introduction

Acute appendicitis is a common cause of acute abdominal pain and is one of the most common abdominal surgical emergencies. In the past, the treatment of acute appendicitis consisted of open appendectomy through a small skin incision in the right lower abdominal quadrant. In some cases of perforated appendicitis with diffuse peritonitis, median laparotomy was performed with appendectomy, irrigation and drainage of the abdominal cavity. Nowadays, surgical treatment of acute appendicitis has shifted from open appendectomy to laparoscopic appendectomy in adults and in pediatric patients [1].

Discussion

With the development of minimally invasive surgery, the treatment of acute appendicitis has shifted from open appendectomy to laparoscopic appendectomy. Laparoscopic appendectomy has some benefits, such as less wound pain, less wound infection, a shorter hospital stay, and faster recovery. At the beginning, the laparoscopic approach has been advocated only in cases of uncomplicated appendicitis, but in recent years laparoscopic approach has been used also in cases of perforated appendicitis [2]. Several studies have been performed to evaluate the feasibility of a laparoscopic approach in adults and in children with generalized peritonitis secondary to perforated appendicitis and they concluded, that laparoscopic appendectomy is feasible for use both in children and in adults with generalized peritonitis from perforated appendicitis. The rates of conversions and perioperative complication rates were comparable in both groups. Galli et al. [3,4] concluded from their retrospective analysis, that laparoscopic appendectomy results in a significantly shorter hospital stay, fewer overall postoperative complications, and fewer wound infections compared to open appendectomy. Infectious complication rates were similar for both procedures. Laparoscopic appendectomy provides a safe option for treating patients with perforated appendicitis. Ferranti et al. [5] observed in their

retrospective analysis higher incidence of postoperative intra-abdominal abscesses (16,6%), although not statistically significant, in patients after laparoscopic appendectomy compared with open appendectomy group (5%). On the other hand the rate of wound infection was lower (5%) after laparoscopic appendectomy versus open appendectomy (20%). They recommended, that laparoscopic appendectomy should be utilised with caution in cases of perforated appendicitis, because it is associated with an increased risk of postoperative intra-abdominal abscesses compared with open appendectomy [6]. According to WSES (World Society of Emergency Surgery) guidelines from year 2016, the complicated appendicitis can be approached laparoscopically by experienced surgeon. It has several advantages, such as lower overall complications, readmission rate, small bowel obstruction, infectious complications and faster recovery. Laparoscopic appendectomy for complicated appendicitis can be performed with low cost equipment, allowing significantly lower overall costs compared to open appendectomy [1].

Conclusion

Complicated acute appendicitis was once a contraindication for laparoscopic appendectomy. Today laparoscopic appendectomy is the first choice of surgical treatment for most of the surgeons even in cases of complicated appendicitis, as it turned out to be a safe and effective treatment modality.

References

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