ISSN: 0975-3583,0976-2833 VOL14, ISSUE 02, 2023

ORIGINAL RESEARCH

Comparative evaluation of Laparoscopic versus Open Appendectomy Outcomes

[1]Dr. Gangadhar Shivalingappa Sansuddi, [2]Dr.Atul Shashikant Ambole

[1]Associate Professor, Department of Anatomy, S S P.M. Medical College and Life Time Hospital, Sindhudurg, Maharashtra, India
[2]Associate Professor, Department of General Surgery, Prakash Institute of Medical Sciences & Research, Islampur, Maharashtra, India

Corresponding author
Dr. Gangadhar Shivalingappa Sansuddi
Associate Professor, Department of Anatomy, S S P.M. Medical College and Life Time Hospital, Sindhudurg, Maharashtra, India

Received: 18 December, 2022 Accepted: 23 January, 2023

Abstract
With a 6% lifetime risk, appendicitis is one of the most frequent surgical emergencies requiring an appendectomy. For open appendectomy (OA), the overall death rate is about 0.3%, while the overall morbidity rate is roughly 11%. Compare the outcomes of the operations, perioperative and postoperative complications, hospital admission, and postoperative pain and nausea between laparoscopic and open appendectomy. The study included all patients between the ages of 13 and 60 who were hospitalized through the accident and emergency (A&E) department with a clinical diagnosis of acute appendicitis and those who finished follow-up. Any patients in whom an appendicle abscess or a palpable lump in the right lower quadrant has been suspected but no clinical diagnosis of acute appendicitis has been made, and people who refuse to consent are not included in the study. All patients who underwent a laparoscopic or open appendectomy had their medical records reviewed. In 93% of individuals with an appendicitis diagnosis, the Alvarado Score is more than 7. Eight patients in OA and one in LA, with rates of 1.5% and 0.2% respectively, experienced wound infection in nine patients (1.6%). The hematoma occurs in four individuals (0.8%), with three cases in OA and one in LA (with rates of 0.6% and 0.2%, respectively).Seven reported cases of appendectomy result in pelvic abscess (1.4%). (5 cases in OA and 2 cases in LA, respectively, with rates of 1% and 0.4%). The Alvarado Score is very important for diagnosing acute appendicitis. Less hematoma, wound infections, quicker healing, and earlier return to regular activity are benefits of laparoscopic appendectomy, however the procedure takes longer overall.

Introduction

With a 6% lifetime risk, appendicitis is one of the most frequent surgical emergencies that necessitate appendectomy worldwide. Open appendectomy (OA) has a 0.3% overall mortality risk and an 11% morbidity rate. In 1989, Kurt Seem became the first person to explain laparoscopic appendectomy. boosted by theLaparoscopic cholecystectomy has quickly established itself as the gold standard for treating gallstone disease.[1]Lives, I. found a definite seasonal variation in the occurrence of acute appendicitis [2]. This study's goal is to describe the results of appendectomy procedures at S S P.M. Medical College and Life Time Hospital, Sindhudurg.

ISSN: 0975-3583,0976-2833 VOL14, ISSUE 02, 2023

Method

The local ethical and research committee gave its approval. This research was done in the past. Patient demographic information was gathered. Comorbidities and surgical complications were reported to exist. Patients' medical records who underwent appendectomy surgery were examined.A minimum of 12 months of follow-up was done. In terms of comorbidities, mode of diagnosis, hospital admission, operating time, complication rate, and histological findings, we compared open versus laparoscopic appendectomy.We only included people who were post-appendectomy and older than 13 years old.Patients who were unwilling to provide informed consent and those who were younger than 13 years old were excluded.

Operative technique for laparoscopic appendectom

There were three trocar incisions made following preoperative planning. 5 mm supraumbilical for the visiport technology camera insertion. The final 11 mm and one suprapubic 5 mm were positioned in the bottom left quadrant. The annexlocated to the right three tinea coli near the end of the iliac fossa Using a hook, separate the appendix from the mesoappendix. Then, suture the base of the appendix with an end loop. Finally, snip the suture at the base of the appendix. If there is a collection, it is then suctioned. Finally, the fascia and skin around the 11mm port site were closed.

Result

Appendectomies were performed on 502 individuals in total. And out of them, 298 (59.6%) were female and 204 (40.4%) were male. 18 years old was the average age. Diabetes is among the comorbidities 22.(5.5%) and 6 (1.4%), and hypertension. In 93% of patients with an acute appendicitis diagnosis, the Alvarado score was more than 7. 20 kg/m was the body mass index. Open appendectomy was performed on 327 patients (65.3%) while laparoscopic appendectomy was performed on 175 patients (34.7%). There were no conversions in LA. The average length of the operation was 75 minutes (OA and LA took 43 and 53 minutes, respectively). Average hospital stay for both open and laparoscopic appendectomy is one day. Six cases (6%) in OA and two cases (0%) in LA, with rates of 1.2% and 0.4% respectively, develop seromas. Nine patients (1.8%), with rates of 1.5% and 1.4% in OA and LA, respectively, develop wound infectionscorrespondingly 0.2%). The hematoma occurs in four cases (0.4%), with three cases in OA and one in LA (with rates of 0.6% and 0.2%, respectively). Seven instances (1.4%), with rates of 1% and 0.4%, respectively, respectively, for OA and LA, develop pelvic abscesses.

Type of operation	Open appendectomy	Laparoscopic appendectomy
No. of cases	329	173
Time (minute)	43	53
Seroma	5	3
Wound infection	7	2
Hematoma	3	1
Pelvic abscess	4	3
Vascular injury	0	0

Discussion

One of the most frequent abdominal crises worldwide is acute appendicitis. Few developments have been made in the last few decades, and the cause is still poorly understood. Since each patient presenting with symptoms of appendicitis must be considered, it is still difficult to make a clear preoperative diagnosis abdomen that is acute.[3]For the best chance of preventing complications like perforation, which can increase morbidity, early

ISSN: 0975-3583,0976-2833 VOL14, ISSUE 02, 2023

diagnosis and treatment with an appendectomy is recommended. Using skilled minimally invasive surgery, morbidity can be reduced.

Since McBurney introduced the open appendectomy in 1894, it has been the preferred course of therapy for a century, and surgeons now do it according to a recognized protocol. Laparoscopic surgery has grown in acceptance and use in nearly all surgical specialties In a study comparing laparoscopic appendectomy versus open appendectomy, the former procedure was shown to be safe and practicable. A recent systematic review of meta-analyses of randomized controlled trials comparing laparoscopic versus open appendectomy found that both procedures are safe and the treatment of acute appendicitis is successful.[4] However, some studies have been unable to show an advantage of laparoscopic over open appendectomy. In certain cases, the laparoscopic appendectomy resulted in a half-day shorter hospital stay.[5]In terms of material cost, laparoscopic appendectomy was more expensive than open appendectomy. There was, however, no clear difference in the total cost of hospitalization between them, according to several research. The shorter hospital stay in LA couldcontribute in some way.[6] A shorter hospital stay resulted in lower costs and more patient satisfaction. Laparoscopic appendectomy's significance has not been confirmed because of the study's numerous shortcomings.

Conclusion

In order to accurately diagnose acute appendicitis, the Alvarado score is quite significant.With the benefit of fewer seroma, hematomas, wound infections, pelvic abscesses, and faster recovery and earlier return to normal activities, laparoscopic appendectomy has increased diagnosticaccuracy but has a lengthy recovery period.

Refernces

1. Roberts, K.E., Starker, L.F., Duffy, A.J., Bell, R.L. and Bokhari, J. (2011) Stump Appendicitis: A Surgeon’s Dilemma. Journal of The Society of Laparoendoscopic Surgeons, 15, 373-378.
2. Ilves, I., et al. (2014) Seasonal Variations of Acute Appendicitis and Nonspecific Abdominal Pain in Finland. World Journal of Gastroenterology, 20, 4037-4042.
3. Bhangu, A., Søreide, K., Di Saverio, S., et al. (2015) Acute Appendicitis: Modern Understanding of Pathogenesis, Diagnosis, and Management. The Lancet, 386, 1278-1287.
4. Jaschinski, T., Mosch, C., Eikermann, M. and Neugebauer, E.A. (2015) Laparoscopic versus Open Appendectomy in Patients with Suspected Appendicitis: A Systematic Review of Meta-Analyses of Randomised Controlled Trials. BMC Gastroenterol, 15, Article No. 48.
5. Ball, C.G., Kortbeek, J.B., Kirkpatrick, A.W. and Mitchell, P. (2004) Laparoscopic Appendectomy for Complicated Appendicitis: An Evaluation of Postoperative Factors. Surgical Endoscopy, 18, 969-973
6. Cai, Y.L., Yang, S.S., Peng, D.Z., Jia, Q.B., et al. (2020) Laparoscopic Appendectomy Is Safe and Feasible in Pregnant Women during Second Trimester: A Retrospective Study in a Top-Level Chinese Center. Medicine (Baltimore), 9, e21801.