

Advantages and Complications of Laparoscopic Assisted Extracorporeal Appendicectomy

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ABSTRACT

This study was conducted to assess the advantages and complications of laparoscopic assisted extracorporeal appendicectomy. This is an observational cohort study conducted in Department of General Surgery, Swaroop Rani Hospital, Allahabad among all 70 patients admitted with suspected appendicitis with or without localized or generalized peritonitis during the period of one year (November 2012- October 2013) within 48 hours of admission. Abdominal drain was used in 8 patients. The appendicectomy was performed between 4-48 hours of admission. The mean operation time was 35 minutes (range, 25-65). The mean hospital stay was 2 days (range, 1-7). Laparotomy was performed in one patient to control the intraperitoneal bleeding from the slipped pedicle 24-48 hours after the surgery. Port site bleeding was observed in 2 patients, wound infection in 1 patient, port site pain in 5 and intra abdominal bleeding in 1 patient. Two port laparoscopic assisted open appendicectomy is simple, easy to learn and has the combined advantages of open appendicectomy and full laparoscopy of abdomen.

Key words: assisted, extracorporeal, appendicectomy, slipped, pedicle

INTRODUCTION

Introduction

Appendicectomy is the most commonly performed intra-abdominal operation. Semm¹ first introduced the laparoscopic method for appendicectomy in the early 1980s. Since then laparoscopic appendicectomy (LA) was made popular by various surgeons and preferred over the open method due to its inherent advantages.² Acute abdominal pain is a common cause for presentation to the emergency room and hospital admission. In patients with acute abdominal pain, early laparoscopy is an accurate means of both making a definitive diagnosis and avoiding a delay in the diagnosis.³ Diagnostic laparoscopy is a useful tool, especially when there is no definite anatomical abnormality visible on imaging modalities.⁴ A laparoscopic appendicectomy is associated with less postoperative pain and a shorter postoperative stay than the open technique. However, the open technique is faster and less expensive than the completely laparoscopic method. A laparoscopic-assisted appendectomy has the advantages of both the laparoscopic and open techniques.

Material and methods

This is an observational cohort study conducted in Department of General Surgery, Swaroop Rani Hospital, Allahabad among all 70 patients admitted with suspected appendicitis with or without localized or generalized peritonitis during the period of one year (November 2012- October 2013).

Exclusion criteria:

1. Patients who had undergone abdominal surgery before.
2. Pregnant female
3. Children less than 12 years
4. Vitally unstable patient e.g. Shock

Informed consent was taken by the patients. Lab investigations included complete blood count, blood sugar, serum urea creatinine, viral markers and electrolytes. Pregnancy test, chest radiograph, abdominal radiograph, ultrasound and CT scan were performed when clinically indicated.

Patients were operated in supine position. Pneumoperitoneum created with veress needle, a 10 mm port was inserted with the help of trocar by

giving small infra-umbilical incision. Another 10 mm port was inserted in right iliac fossa under vision. Table was tilted towards left side. With the help of grasper through second 10mm port appendix was held on its mesentery near tip and delivered extra-corporeally along with canula. Abdominal cavity deflated, vascular pedicle was ligated at its base. Appendix was cut and stump was touched with betadine swab and put back in abdomen. If needed a drain was put through right iliac fossa port.

Table 1: Distribution of Patients According to Demographic Characteristics

	Number	%
Age Group		
<25 years	48	68.57
>25 years	22	31.43
Gender of patient		
Male	33	47.17
Female	37	52.83
Locality		
Urban	41	58.57
Rural	29	41.43

Table 1 shows the distribution of patients according to demographic characteristics. Majority of the patients i.e., 48 (68.57 %) group were in the age group of >25 years. Out of total number of patients in the study, majority were females 37 (52.83%), and 33 (47.17%) were males. Majority of the patients i.e., 41 (58.57 %) belonged to urban area.

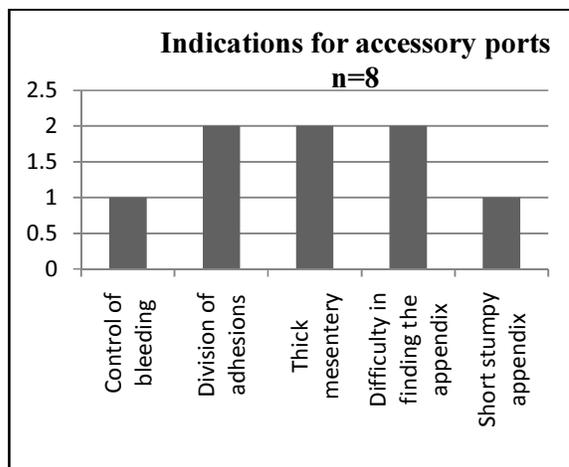


Fig.1 Indications for accessory ports.

Abdominal drain was used in 8 patients. The appendicectomy was performed between 4-48

hours of admission. The mean operation time was 35 minutes (range, 25-65). The mean hospital stay was 2 days (range, 1-7). Laparotomy was performed in one patient to control the intraperitoneal bleeding from the slipped pedicle 24-48 hours after the surgery.

Table 2: Post Operative Complications

Slipped Pedicle	1
Port site bleeding	2
Port site wound infection	1
Port site pain	5
Postoperative Intraabdominal bleeding	1

Table 2 depicts the post-operative complications. Among a total of 7 patients, port site bleeding was observed in 2 patients, wound infection in 1 patient, port site pain in 5 and intra abdominal bleeding in 1 patient.

DISCUSSION

The advantages of laparoscopic appendicectomy are well proven in several prospective randomized trials and it can be performed using one to several ports⁵⁻¹². Two port laparoscopic assisted open appendicectomy is simple, easy to learn and has the combined advantages of open appendicectomy and full laparoscopy of abdomen. It can be converted to open appendicectomy very quickly when required or to total intracorporeal approach by inserting accessory ports.

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