

# Advantages of Laparoscopic Appendectomy in young females

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## ABSTRACT

**Aim:** To evaluate the role of laparoscopic surgery for Appendectomies in terms of associated pathology like Ovarian cyst, Meckel's diverticulum, Intestinal T.B and early Ectopic Pregnancy.

**Methods:** The observational data was collected (during October 2016 to December 2017) from public sector and private hospitals of District Bhakkar.

**Results:** Fifty patients of age between 13-25 yearsold who were having pain in right iliac fossa, were observed. Lab Investigations and USG abdomens were performed as a preliminary investigation. Biochemical and imaging tests were inconclusive for any other pathology, other than acute appendicitis. Laparoscopic approach was designed for those patients after routine baseline labs like Complete Blood Count, Renal Profile and Viral markers within 24 hours. Out of 50 patients, 5 patients had associated pathology which could have been missed in open surgery.

**Conclusion:** Laparoscopic appendectomy is the gold standard procedure for Acute Appendicitis.

**Keywords:** Appendectomy, Meckel's diverticulum, ovarian cyst

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## INTRODUCTION

Acute Appendicitis is a widespread Health problem. The incidence of Acute Appendicitis shows significant suffering and disability, although mortality of this disease is relatively limited due to recent diagnostic approaches and latest management options. Risk factors for acute appendicitis are age, gender, socioeconomic status, obesity, time of presentation in the hospital after having RIF pain.

Complications associated with Acute appendicitis is the most common cause of acute abdomen. That's why; sometime it becomes extremely difficult to differentiate acute appendicitis from the other differentials. Laparoscopic procedure, in such cases, proves to be a boon for the surgeons as well as patients as it has both diagnostic and therapeutic aspects. It provides a quicker, comfortable recovery with immediate return to work by reducing trauma of the operative procedures.

The widespread use of ultrasonography has led to the perfection of diagnosis in clinically suspected cases by ruling out other closely related differentials like Ovarian cyst, ascites, renal/ureteric stones but many other likely diseases like Meckel's Diverticulum, early torsion of Ovarian cyst etc. cannot be diagnosed with ultrasonography. Laparoscopy has made the surgeons bold by helping in correctly diagnosing the cause of acute abdomen and treating it at the very same moment. Reports from specialized centers with wide experience in laparoscopic surgery are unlikely to represent what occurs in everyday practice. This study represents the true incidence of associated problems which are clinically same like acute appendicitis.

Acute appendicitis is one of the most common abdominal difficulties all-inclusive. The reason left over well agreed, with few advances in the past few decades. To find an assured preoperative analysis is quite a task, since the opportunity of appendicitis must be missed in any patient donating with an acute abdomen (Bhanqu et al, 2015).

An appendix is present at lower part of abdomen. Inflammation occurs in appendix that's called appendicitis which is commonly acute in onset. Appendicitis is mostly common in children and young females. In most circumstances it requires emergency surgery, to avoid from breakdown of the appendix into the abdomen. The inflamed appendix is surgically detached during the operation, this is called appendectomy. The modern surgical tactic includes a small cut (about 5 cm or 2 inches) in the right lower abdominal wall. On the other hand, it is likely to achieve the operation by laparoscopy. This operation, called laparoscopic appendectomy, it requires 3 very small cuts (each about 1 cm or 1/2 inch). The surgeon then introduces a camera and some instruments into the abdomen and removes the appendix as in the conventional operation (Sauerland et al., 2010).

Appendectomy is the most communal clinical process accomplished in emergency surgery. Due to deficiency of agreement about the most suitable technique, appendectomy is quiet being achieved by both open (OA) and laparoscopic (LA) approaches (Biondini et al., 2016).

Laparoscopy now-a-days is known as the gold stock in the cure of appendicitis universal. Presently the benefits of laparoscopy contain quicker recovery, shorter hospital stay, reduced postoperative pain, earlier return to work and recommencement of normal daily activity as well as cosmetic benefits (Saverio, 2014).

## MATERIAL AND METHOD

This is an observational study of laparoscopic appendectomy which was performed at DHQ Hospital and Al-Hadi Medical Complex Bhakkar between November 2016 and December 2017. Patients selected for this study were all females with the age range of 13-40 years. Data was collected and Patients were kept in observation in outpatient department.

Acute Appendicitis was diagnosed on the basis of History, Physical Examination, and Laboratory testing and Ultrasonographic evaluation. The Indication for surgery was Acute Appendicitis. Suspected cases of Ovarian cyst, Appendicular Abscess, Perforated Appendix, Appendicular

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mass and Ruptured Ectopic Pregnancy were excluded from study preoperatively. In each case, Laparoscopic Procedure was explained to patients and consent was taken beforehand.

Patients were also told that in the event of intraoperative difficulties, there might be the chance of conversion of the laparoscopic procedure to the open one. Triple Regimen coverage with Inj. Flagyl, Gentamicin and Cephadrine was injected preoperatively. In all cases, three tiny punctures were made at three different sites i.e. umbilicus, Suprapubic and Left Iliac Fossa.

**RESULTS**

The Operating time was calculated from the penetration of the first umbilical port to the skin closure and it was around 30 to 45 minutes. Patients were discharged on the very next day of Surgery. Out of those 50 patients, only 5 cases were converted to open procedure.

- 2 patients were having Appendicular mass
  - 1 patient was having massive adhesion due to T.B
  - 1 patient was having blood in her peritoneal cavity due to ruptured ovarian cyst
  - 1 patient was having uncontrollable bleeding situation
- No portside infection or post-operative complication was noted in these patients.

Table 1: Operative Findings

Intraoperative Complications	n	%age
Appendicular Mass	2	4
Bleeding (Appendicular Artery Retraction)	1	2
Adhesions	1	2
Ruptured Ovarian Cyst causing blood all over the peritoneal cavity and obscuring the vision	1	2

Table 2: Operative Time

Duration	
Operation Time	30-45 minutes
Hospital Stay	24 hours (1 day)

**DISCUSSION**

Laparoscopic Appendectomy is becoming popular for the treatment of acute appendicitis. This procedure should only be performed by the surgeons who have proper expertise in order to avoid morbidity and mortality related to this condition. With advancement in the field of minimal invasive surgery, procedures have become safer which provide lower rate of complications with minimal stay hours at the hospital.

These 50 patients were admitted with the diagnosis of acute appendicitis. Diagnostic Laparoscopy helped us in correctly diagnosing the associated incidental findings like Ovarian cyst, Millitary Abdominal TB, Endometriosis, Ovarian Cyst Torsion etc. Therapeutic Laparoscopy led to the appendectomy along with Marsupialization of the Cyst (in case of Ovarian Cyst), Taking sample from the peritoneal fluid and peritoneal biopsy for the cytology (In suspected cases of Abdominal TB) and clearance of the hemorrhagic fluid (due to ruptured Ovarian cyst). In addition to the clearance of hemorrhagic fluid, we were also able to place the drain.

There was no incidence of pulmonary embolism or DVT in our 50 patients. There was no wound infection, moreover single dressing was applied and stitches were taken out on 8<sup>th</sup> day. Laparoscopic Surgery is likely to generate less post-operative anxiety related to self-image and it is gaining popularity, even in the peripheral areas like Bhakkar, because of the advantages that it offers to the patients.

To sum up, in my opinion, laparoscopic procedure has the advantages of sound curative effect and low incidence of complications with good aesthetic appearance at low cost, that's why it is correctly named as modern day minimally invasive Band-Aid or keyhole surgery. There could be no better reward for a surgeon than seeing a patient smile after a painful incident and paying gratitude by comparing himself with the other relatives who underwent open appendectomy and bore the trauma of an invasive surgery.

**REFERENCES**

1. Bhangu, A., Soreide, K., Saverio, D.S., Assarsson, J.H. and Drake, T.F. 2015. Acute appendicitis: modern understanding of pathogenesis, diagnosis, and management. THE LANCET, 386: 1278-1287.
2. Sauerland, S., Jaschinski, T. and Neugebauer, E.A.M. 2010. Laparoscopic versus open surgery for suspected appendicitis (Review). Cochrane, DOI: 10.1002/14651858.CD001546.pub3.
3. Biondi, A., Stefano, C.D., Ferrara, F., Bellia, A., Vacante, M. and Piazza, L. 2016. Laparoscopic versus open appendectomy: a retrospective cohort study assessing outcomes and cost-effectiveness. World journal of emergency surgery, 11: 44.
4. Saverio, D.S. 2014. Emergency laparoscopy: a new emerging discipline for treating abdominal emergencies attempting to minimize costs and invasiveness and maximize outcomes and patients' comfort. J Trauma Acute Care Surg, 77:338-350.