

Appendicectomy; Non-Invagination Vs. Invagination of Appendicular Stump

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Objective: To find out the benefits of invagination of stump during appendicectomy. Acute appendicitis is the most common abdominal emergency requiring emergency surgery. **Design:** A prospective randomized clinical trial. **Period:** From June 2003 - May 2005. **Setting:** Mayo Hospital & Sir Ganga Ram Hospital, Lahore. **Patients & methods:** A prospective randomized study including 200 patients undergoing appendicectomy was carried out to see any advantage of invagination of appendicular stump. **Results:** A total of 200 operated cases of appendicitis divided in two groups of 100 cases each. In Group A, there were 59 males and to 2nd and 3rd decade. In Group B there were 63 males and females. The youngest patient was 5 year old while the eldest was 57 year old. Maximum patients belonged to 2nd and 3rd decade. **Conclusion:** It was that there was no added benefit of invagination of appendicular stump, rather it took more operative time, and times, it was hazardous to do so.

Key word: Appendicitis, Operative technique, Comparison

Acute appendicitis remains the most common acute condition requiring acute abdominal surgery. First successful appendicectomy was performed in 1736. Appendicectomy was later described as a standard procedure by Charles McBurney¹. Since then, acute appendicitis remain the most common condition requiring acute abdominal surgery. Obstruction of the lumen of the appendix is the principal cause, which may be due to lymphoid hypertrophy, fecolith, kinking or intestinal worms². Both open and laparoscopy appendicectomy are being practiced⁽³⁾, but operating surgeon at times can not decide whether to invaginate the appendicular stump or not, and, moreover either procedure carry an advantage or not. The answer these questions, a prospective randomized study was done to compare to conventional appendicectomy techniques.

Patients and methods:

The study was designed as a prospective randomized clinical trial. Two hundred male and female patients of all ages operated for acute appendicitis from June 2003 to May 2005 in Mayo and Sir Ganga Ram Hospital, Lahore were included in the study. These patients were randomly divided in two equal groups. Appendicular stump of patients of Group-A were invaginated in the caecal wall, appendicular stump of patients of Group B were left as such. Cases of incidental appendicectomy, perforated appendicitis, appendicular mass and abscess were not included in this study. Detailed history regarding duration, onset, severity and shifting of abdominal pain was taken. Associated symptoms like nausea, vomiting, fever, any urinary or bowel disturbance were also recorded. Past history of any such attacks, was also taken, Thorough systemic clinical examination was conducted.

Diagnosis was based on tenderness and guarding in right lower quadrant of abdomen. Blood complete picture and time routine examination were done in every patient. Total and differential leucocytes and any urinary

RBCs/Pus cells were also recovered. After proper preparation, all the patients were operated under general anesthesia. Abdomen was opened by transverse incision over the Mc Burney's point. Location, size and nature of appendix were noted in each patient. After ligation of appendicular vessels, mesoappendix was divided. Appendix was completely mobilized; chromic catgut No.1 A haemostat was applied close to ligature and appendix was divided with scalpel and removed.

Appendicular stump patients of Group A invaginated in the caecum with a Purstring using 2/0 chromic catgut on an atraumatic needle in 1 cm away from the appendicular stump. On the other hand, appendicular stump of patients of Group B were left as such. Abdomen was closed in layers. None of the patient required drainage of abdominal cavity. Operative time was recorded in each case. It was taken from the start of incision to last skin suture. Every patient was given only three doses of intravenous injection metronidazole first dose being the pre-operative one. Injection diclofenac sodium 50 mg deep intramuscular was given bid on first only. Post-operative vomiting and fever, if any, were noted. Oral fluids were started after 18 to 24 hours. Once flatus was passed and bowel sounds were audible. Operative site was examined on second and seventh post-operative day for any sign of infection, which was recorded. Skin sutures were removed on seventh post-operative day.

Results:

A total of 200 cases of acute appendicitis were reported. They were divided in two group of 100 cases each. In Group A, there were 59 males and 41 females. The youngest patient was 5 years old while that eldest was 57 years old. Maximum patients belonged to 2nd and 3rd decade. The age-wise distribution of patients is shown in Table I. Abdominal pain and nausea was a constant

