

Experience With On Table Inspection of Appendix Mucosa & its Role in Diagnostic Efficacy.

K J KHAN M S. CHOHAN A HASSAN M UMER

Department of Surgery, Fatima Jinnah Medical College/Sir Ganga Ram Hospital, Lahore

Correspondence to: Dr. Khalid Javeed Khan Assistant Professor Surgery

Within two years (1999-2002) 89 patients presented in the casualty department of Sir Ganga Ram Hospital who were diagnosed clinically as borderline cases of acute appendicitis. These patients were operated for appendectomy. To confirm the diagnosis on-table appendicular mucosa inspected which showed different varieties of the acute inflammation on gross examination. In this study Surgically 18% appendices were normal but proved inflamed Histologically. Similarly 15% such appendices were inflamed on the table but histopathological examinations proved them normal. This study does help us, in future, to diagnose the cases of acute appendicitis in the casualty department and prevent the complication rate of the acute appendicitis.

Key words: Appendectomy

Diagnosis of acute appendicitis is many a times a diagnostic dilemma. The standard incisions used for appendectomy do not allow a thorough exploration so in equivocal situations the diagnosis is always a problem. The smaller incisions may result in the true pathology remaining undetected¹.

It is many a time quite difficult to diagnose accurately the presence of inflammation on simple inspection of the appendix as about 8%-10% of the apparent normal appendices are inflamed on subsequently histological examination. Similarly there is a 12%-16% incidence of normal histology in appendices looking inflamed on inspection. This study was designed to study the efficacy of the role of opening up the appendix on the table immediately after the completion of the operation.

Material & method

The study comprises of 89 consecutive cases, which underwent open appendectomy during a period of two years (1999-2001). The patients included in the study were borderline cases, where diagnostic accuracy was not enough to make a convincing diagnosis. The comments of this survey were recorded and compared with the final histological diagnosis. The evidences of inflammation on gross examination were serosal hyperemia, mucosal congestion, and thickening of the mucosa and presence of faeces or pus and appendicolith. The minimum histological criterion required for the diagnosis of the appendicitis was the presence of polymorphs in the mucosa or submucosa. The patients with the peritoneal response in the form of exudative fluid, frank pus, gangrene and perforation of the appendix were excluded for the study.

Results

The age of the patients ranged from 14-62 years of age. There were 29 males and 60 females. The results of naked eye appearance compared with histological reports are shown in the table:

Table

Surgically inflamed: Histologically inflamed; 55%: 62%
Surgically normal: Histologically normal; 16%: 18%
Surgically inflamed: Histologically normal; 15%: 16%
Surgically normal: Histologically inflamed; 03%: 3.37%

The results showed that in most of the cases the on the table examination and the histological reports are similar. However, the chances of histological diagnosis are more as compared to the naked eye examination.

In this study apparently normal looking appendices were proved to be inflamed on histological examination (18%). Similarly inflamed looking appendices were proved negative on histological reports (15%). Surprisingly, opening the appendix was associated with an increased likelihood of misdiagnosing a normal appendix as inflamed. The results of this study are quite similar to the study of Mr. A.N.Charitou².

Discussion

Opening the appendix on the table has been routine and standard teaching³. The results suggest that it is unlikely to prevent occasions where appendicitis is wrongly diagnosed and the true pathology is missed opening the appendix cannot be recommended especially it may compromise subsequent histological examination.

Studies have attempted to address the issue of decreasing the perforation and the complication rate while subjecting a minimum number of patients to unnecessary surgery. Wen and Naylor Wen and Naylor hypothesized that the rate of histologically confirmed appendices cases would be increased with no associated increase in morbidity with the use of modern imaging, broad-spectrum antibiotics and the use of diagnostic laparoscopy⁴.

The greater chance of erroneous results in opening the appendix on table can also explained by assuring that mucosal inflammation alone, as occurs in early appendicitis, is indistinguishable only upon microscopic,

not macroscopic examination. Trauma for opening the appendix may wrongly be diagnosed as inflammation.

References

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