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ACUTE APPENDICITIS;
PRESENT PATTERN AND POSTOPERATIVE COMPLICATIONS

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ABSTRACT… Objectives: To determine the clinical presenting pattern and postoperative complications of acute appendicitis. **Study design:** Observational and cross-sectional study. **Setting:** Isra university hospital Hyderabad. **Period:** 7 months. **Methodology:** All the patients above 12 years of age and both genders male/female after diagnosis of acute appendicitis had integrated in the study. Complete clinical pattern and postoperative complications had recorded. **Results:** Symptoms/sign nausea, vomiting, anorexia, rebound tenderness, fever, constipation, diarrhea and leukocytosis were noted with the percentage 98.0%, 65.0%, 95.0%, 90.0%, 85.0%, 58.0%, 30.0% and 89.0% respectively. Paraumblical pain was noted in 50.0% of the cases, right iliac fossa pain was in the 99.0%, epigastric pain was seen in 61.0% and the other abdominal pain was noted in the 39.0%. Postoperative complications found in 33.0% of the cases and majority was seen wound infection. **Conclusion**: In the conclusion of this study clinical features nausea, vomiting, anorexia, rebound tenderness, fever, and leukocytosis were seen as most common and the most important postoperative complication is infection which probably created with the uncompleted sterilization.

Key words: acute appendicitis, clinical features, post-operative complications.

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INTRODUCTION

Acute appendicitis (AP) is the exceptionally regular reason for acute pain of abdomen and is the most continuous evidence for emergency surgery.[1] Clinical presentation is most unmistakable and dynamic in the obstructive appendix than non-obstructive. Pain begins from umbilical zone or from epigastrium and moved to the right iliac fossa at the appropriate time. Cough reasons contained pain in RIF in the AP and is not present in renal sickness. Once parietal peritoneum is locked in it makes additional solid, steady and confined pain which moves and has modify its quality. This established instinctive physical arrangement is found in just (50%) of patients of acute appendicitis as ahead of schedule “signs and indications” relies on the area of the tip of the informative supplement that is exceptionally variable.[2]

In early appendicitis, the patient is at first a febrile or has low grad fever. In the olds an infected appendix is extremely troublesome issue bringing about right finding and in addition high rate of perforation.[3] The exact analysis of pain right iliac fossa torment remains a troublesome clinical issue as the differential conclusion of such an pain is not straight forward.[4] Disregarding advancement of different analytic scores[5] and symptomatic guides like C reactive proteins,[6] the analysis has been mistaking for the clinician[5] as no research facility or radiological test is 100% accurate.[7]

Also, as with all operations, postoperative complications exist, including injury diseases, intra stomach abscesses, ileus and, in the more extended term, adhesions. Because of this, it merits considering that the pillar of treatment for other intra stomach inflammatory procedures, for example, diverticulitis, comprise at first of progressive treatment with antibiotics.[8] Traditionally appendectomy has been the treatment of decision for intense appendicitis.[9] Nonetheless, in perspective of the potential morbidity connected with an open appendectomy, is there a part for traditionalist treatment with anti-

infection agents, various reports exist in regards to conceivable moderate treatment of a ruptured appendix, with or without interval appendectomy, and numerous pediatric focuses run through this methodology in cases with appendicitis.[10,11] To determine the pattern of clinical presentations acute appendicitis and postoperative complications of open appendectomy at IUH Hyderabad.

MATERIAL AND METHODES

This observational and cross-sectional study contains on 100 patients which were under went open appendectomy. Study had led at Isra University Hospital Hyderabad at the general surgery department with the 7 months of the time from 1st august 2012 to 28th February 2013. All the cases with acute pain of right iliac fossa and after the assessment of definite history, physical examination and sign /symptoms in regards to the determination of acute appendicitis admitted through emergency and OPD were admitted in the ward for appendectomy. Cases over the 12 years of the age, both sexual orientations were had chosen. Patients beneath the age of 12 years, patients with unsatisfied determination of acute appendicitis and with pregnancy were avoided. All the data regarding clinical pattern and post-operative complications were noted on predesigned Performa connected with. The data was entered and into (SPSS form 16.0). Frequency and percentage were computed for categorical variable like sex, age in the groups, clinical presentation, and postoperative complication of the patients with acute appendicitis.

RESULTS

During the period of study total 100 patients were collected with the diagnosis of acute appendicitis, from the total number of the patients 68%(n=100) were male and 32% (n=100) were female, majority of cases were found in the age group of 23 - 33 years and the second most founded age group was 12 – 22 years of the age with the percentage 45.0%(n=100) and 31.0%(n=100) respectively.

In present series nausea, vomiting, anorexia, rebound tenderness, fever, constipation, diarrhea and leukocytosis was noted with the percentage 98.0%(n=100), 65.0%(n=100), 95.0% (n=100), 90.0% (n=100), 85.0% (n=100), 58.0% (n=100), 30.0% (n=100) and 89.0%(n=100) respectively. Paraumblical pain was noted in 50.0%(n=100) of the cases, right iliac fossa pain was in the 99.0%(n=100) of the patients, epigastric pain was seen in 61.0%(n=100) and the other abdominal pain was noted in the 20.0% (n=100) of the cases. During the operative time acute inflamed appendix gound in the 80% (n=100) of the cases normal appendix in 11.0% (n=100), perforated in 6.0%(n=100) and the gangrenous in only 3.0%(n=100) of the total study participants.

Surgical complications found in 33.0%(n=100) cases from them greatest quantity was noted with wound infection 15%(n=100), post-operative pyrexia was in 8.0%(n=100), post-operative pain was in 10%(n=100), incisional hernia was in 2.0%(n=100) and intra-abdominal abscess was noted only in the 1.0%(n=100) of cases of present study.

Characteristics	No. of patients	%
Gender		
Male	68	68.0%
Female	32	32.0%
Age groups		
12 - 22	31	31.0%
23 – 32	45	45.0%
33 – 42	14	14.0%
43 – 52	8	8.0%
> 52	2	2.0%
Residential status		
Rural	55	55.0%
Urban	45	45.0%

Table-I. Demographic data of the patients (n=100)

Complications	Frequency	%
Post-operative pyrexia	08	08.0%
Wound infection	13	13.0%
Post-operative pain	09	09.0%
Incisional hernia	02	02.0%
Intra-abdominal abscess	01	01.0%
Without complication	67	67.0%

Table-III. Postoperative complications of acute appendicitis (n=100)

Clinical features	Frequency	%
Nausea	98	98.0%
Vomiting	65	65.0%
Anorexia	95	95.0%
Rebound tenderness	90	90.0%
Fever	85	85.0%
Constipation	58	58.0%
Diarrhea	30	30.0%
Lab. Investigation		
Leukocytosis	89	89.0%
Site of pain		
Paraumblical pain	50	50.0%
Right iliac fossa pain	99	99.0%
Epigastric pain	61	61.0%
Others	20	20.0%
Operative findings		
Normal	11	11.0%
Acute inflamed	80	80.0%
Perforated	06	06.0%
Gangrenous	03	03.0%

Table-II. Clinical presentation of the patients with acute appendicitis (n=100)

DISCUSION

In the present study from the selected total number of the patients 68% were male and 32% were female, similar ratio was found in a study as male 58% and the female 42%.[12] Majority of the patients were found in the young age group of 23 - 33 years of the age and the second most founded age group was between the 12 – 22 years of the age with the percentage 45.0% and 31.0% respectively, similar results were in the results of a study of Kamran H et al.[12] In this study sign symptoms nausea, vomiting, anorexia, rebound tenderness, fever, constipation and diarrhea was noted with the percentage 98.0%, 65.0%, 95.0%, 90.0%, 85.0%, 58.0% and 30.0% respectively. Similar results were noted in the study of Fujita W et al, he noted that the abdominal pain in 96.6%; nausea, vomiting or both in 33.1%, and fever in 11.9%. The physical findings on admission were abdominal tenderness in 99.2%, rebound tenderness in 52.5% and palpable mass in 17.8%.[13] Another study also reported that the Commonest sign/symptoms were the vomiting 57.4%, anorexia 49.0%, abdominal tenderness 62.0%, and 19.4%, peritonitis was seen 26.4% and 14.0% and while the abdominal pain was present in 100% patients.[14]

Leukocyte count "TLC" is one of the useful investigations in diagnosis of acute appendicitis. Mild leukocytosis, ranging from (10,000 to 18,000) is usually presents in patients with acute uncomplicated appendicitis and is often accompanied by a moderate polymorphonuclear predominance.[15] Different studies reported that it is a poor predictor of acute appendicitis when looked at in separation but in conjunction with the white cell count it increases the likelihood ratio considerably.[16] Yang et al reported that TLC, neutrophils and CRP are helpful in diagnosis of acute appendicitis and patients with normal values in all the three tests are highly unlikely to have acute appendicitis.[17] According to Wu et al the TLC may serve as predictive parameter for early diagnosis of acute appendicitis in children.[18] In the present study Leukocutosis was found 89.0% in the cases.

The clinical presentation of acute appendicitis may vary from non-specific vague abdominal pain to the classic presentation of right iliac fossa pain, tenderness and rebound tenderness. Pain was noted site wise as paraumblical pain was noted in 50.0% of the cases, right iliac fossa pain was in the 99.0% of the patients, epigastric pain was seen in 61.0% and the other abdominal pain was noted in the 20.0% of the cases of this study. Some other studies were also reported similar results and shows the most common pain in the right iliac fossa in acute appendicitis.[19]

On the operative findings majority of the patients were noted with acute inflamed appendix in the 80% of the cases normal appendix was seen in 11.0%, perforated appendix was in 6.0% and the gangrenous appendix was in only 3.0% of the total study participants. on the comparison similar results were found in the study of Kailash singh et al.[20] In another study the perforation rate was seen 7.8% which is compare able to our study.[21]

The complication rate is related mainly with appendiceal perforation, and increases 10 times

after appendiceal perforation.[22] Post-operative complications were noted in 33.0% of the patients from them greatest quantity was noted with wound infection 15%, pyrexia was in 8.0%, post-operative pain was in 10%, incesional hernia was in 2.0% and intra-abdominal abscess was noted only in the 1.0% of cases of present study. In the study of Toni L Stom Dickerson et al was reported similar results in his study.[23] Bennett et al, reported that the incidence of wound infection after laparoscopic appendectomy ranged from 0 to 18.5%, with a mean of 4% and it was approximately half of that after open appendectomy.[24]

CONCLUSION

In the conclusion of this study clinical features nausea, vomiting, anorexia, rebound tenderness, fever, and leukocytosis were seen as most common and the most important postoperative complication is infection which probably created with the uncompleted sterilization.

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