

Effectiveness of Non operative Treatment in Acute Appendicitis

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ABSTRACT

Background: Acute Appendicitis is one of the most common presentation on surgical floor and Appendectomy is one of the most common emergency operation being done worldwide. Although emergency appendectomy is consider as standard treatment for acute appendicitis but acute appendicitis can also be managed by non operative means in carefully selected/closely observed pts.

Methods: Patients presented with clinically suggestive Appendicitis during my emergency on call duties in King Fahad Hospital Al baha (KFH), KSA from Aug.2011 to Aug. 2012 were selected for the conservative treatment by means of NPO, I/V fluids. More over selected patients were also subjected to single shot of cefuroxime and flagyl. These were adult patients with age ranging from 12 to 80 years. The success rate, conversion rate, recurrence, morbidity and mortality was evaluated. The criteria of inclusion were suggestive clinical features of acute appendicitis, first time presentation, patients with age 12 or above and Alvarado's score 5 or above. Whereas criteria of exclusion were patients with clinical features of complicated appendicitis, recurrent disease, or diabetic. The patients were observed 6 hourly intervals for further consideration regarding conservative treatment and subsequently discharge home or converted for operation. The discharged patient with non operative management was followed up for one year in follow up clinic, ER and through medical record.

Results: Out of 305 patients admitted with provisional diagnosis of acute appendicitis, 176(57.71%) patients were selected for conservative treatment,102(58%)female and 74(42%) were male Conservative treatment was proven successful in 150(85.23%) patients, while failed in 26(14.77%) patients out of 176 selected for non operative management. So out of 305 patients admitted with provisional diagnosis of acute appendicitis, 150(49.18%) were successfully treated by non operative means. It means that almost half of the patients with acute appendicitis can be selected for non operative management with or without antibiotics.

Conclusion: Non operative management in acute appendicitis is a successful alternative option in carefully selected cases through closed observation and regular monitoring. There is acceptable risk of recurrence and complication.

Key words: Acute appendicitis, non-operative management.

INTRODUCTION

Acute appendicitis is one of the commonest surgical emergencies throughout the world. There is 7% life time risk of acute appendicitis and peak age is between 10 to 30 years¹. There have been reports for the conservative treatment of acute appendicitis^{2,5}. Based upon the advancement of antibiotics some authors suggest non operative management as effective alternative treatment of acute appendicitis^{5,6}. In a study patients with perforated appendicitis were treated initially with parenteral antibiotics while those resistant to therapy within 48-72 hours were percutaneously drained under CT. Among these patients 92%⁷ were treated successfully without any need for surgery. The mean hospital stay in that study was 7.6 days, and patients were called for interval appendectomy within 6-12 weeks.

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Although operation is first line of management in acute appendicitis, non-operative treatment can also be an alternative option in carefully selected patients. To prove or disprove this opinion a prospective study was conducted in surgical department King Fahad Hospital Al Baha, KSA.

MATERIAL AND METHODS

A prospective study has been carried out in KFH Al Baha, KSA during one year from Aug. 2011 to Aug.2012. Patients in Adult age group at the age of 12 or above presented in my ER on call duties with clinically suggestive appendicitis were subjected to the study. Initial examination was done by surgery resident and specialist and decided for admission. After that patient was reviewed by consultant with the accompanied team to decide for operation or to keep the patient as conservative. If it was decided to keep under conservative treatment, the patients were regularly followed up 6 hourly. Most studies suggest that most important diagnostic tool is clinical examination. However abdominopelvic ultrasound

was done as per routine to avoid limitation of diagnostic accuracy and to strengthened our study³.

The patients with recurrent attacks, suspected complicated appendicitis like suspected perforated appendix appendicular mass, higher Alvarado's score^{9,10} and diabetic patients were excluded from the study. The study proforma was established and findings were recorded as age, gender, duration of attack, vital sign, Alvarado's score, suggestivity of ultrasound and recurrence after conservative treatment.

Patients were kept NPO with IV fluids and single shot of cefuroxime and flagyl is given in selected patients followed by start of clear fluids depending upon the improvement in the condition of the patient. Patients were discharged on second post admission day provided there was marked clinical improvement. Patients who were not improved or deteriorated were undergone for appendectomy. Patients were given appointment after 02 weeks in the clinic with an open appointment in ER in case of relapse of the complaints. These patients were also kept under observation for the next one year through computer record, MR number and telephonic contact.

RESULT

Our study included 305 patients which were presented in ER with clinically suggestive acute appendicitis 176 patients (57.71%) were selected for conservative treatment depending upon clinical features with Alvarado's score 5 to 8, 102(57.95%) were female and 74(42.05%) were male, with male to female ratio 1.38: 1, age of the patient ranging from 12 years to 80 with mean age 25.96 with SD11.99. The most common symptom was pain right iliac fossa and tenderness RIF was present in all cases, nausea and vomiting in 90(51.13%) cases and then fever in 50(28.4%) cases. Rebound tenderness in 61(34.65%), Rovsing's sign was found in 59(33.52%). TLC ranging from 4,000/cmm to 27,000/cmm. 93(52.84%) were having TLC 15,000/cmm to 20,000/cmm while 50(28.4%) was having TLC >20,000/cmm all patients were undergone ultrasound as per policy and suggestive findings were found in 87(49.43%) of cases. 160(91%) patients were improved within 24 hours and discharged from the hospital. 16(1%) patients whose symptoms persisted or even deteriorated were operated for appendicitis. Majority of patients had no relapse of the during one year of follow up. 25 patients returned to the ER or clinic with the symptoms not convincing for appendicitis were given symptomatic treatment while 10(17.6%) returned with obvious recurrence and were operated . In our study 150(85.22%) cases were managed through 176

selected for non- operative management. More over overall success rate for conservative treatment is almost 50% in patients presented in emergency (150/305=49.18%)

Table: Results of conservative treatment:

Out come	n
Number of patients selected	176(57.71%)
Pts. Improved during 24 hrs	160(91%)
Pts. in which symptoms persists or deteriorated	16(17.6%)
Success rate of conservative Management in selected pts	150(85.22%)
Overall success rate in acute appendicitis	150/305= (49.18%)

DISCUSSION

Acute appendicitis is one of the most common surgical emergencies and one of the most common surgical operations being done worldwide. Although Ultrasound, CT scan and laboratory tests are helpful but diagnosis as well as decision for operation mainly depends upon the clinical examination.

Acute appendicitis if left untreated has potential risk of life threatening complications⁴. The standard treatment of acute appendicitis is appendectomy but it is a big burden to the health care system and it is seen that patients are relatively over treated.

During my 3 year stay in KFH Al baha I felt a relatively more conservative approach towards acute appendicitis being adopted by my colleague surgeons in contrary to the more liberal approach in our setup. .So I decided to launch a prospective study to find out the effectiveness of non-operative management of acute appendicitis. There is a need of more careful examination and regular monitoring of the patient to see the spontaneous improvement before taking the final decision for operation in contrary to the orthodox believe that majority of patients with pain RIF should be operated for appendix and by standard up to 10% appendix should be histopathologically negative.

In our study 57.70% (Patients with Alvarado's score 5 to 8) were selected for conservative treatment and 82.4% were successfully managed. The failure rate of conservative treatment was 17.61%. Also recurrence is acceptable more over there is no life treating complication seen in our study. In another study performed by Oliak et al⁵. 77patients were treated non operatively for acute appendicitis between 1992 and 1998. The success and complication rates were reported as 95% and 12%, respectively while recurrence occurred in five patients (6.5%) within 30 weeks of the follow-up period, which is acceptable. Two of these patients were retreated nonoperatively.

CONCLUSION

Urgent or emergency appendectomy is not the only treatment for appendicitis but non operative management is also successful alternative for carefully selected patients with accompanied closed observation and monitoring with acceptable failure rate and eventually without any life threatening complication.

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