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ORIGINAL ARTICLE

Does Tamsulosin Has A Role in The Conservative Treatment of Appendicitis

Modhar S. Al-Omary¹ and Ali J. Ali²

^{1,2} Department of Surgery, Al-Jumhuri Teaching Hospital, Mosul, Iraq.

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Corresponding author:

Ali J. Ali
Email: alijumaaali15699@gmail.com
Department of General Surgery
Aljamhory Teaching Hospital
Mosul
Iraq

ABSTRACT

Objectives: To define the value of Tamsulosine drug addition to antibiotics (Ceftriaxone and Metronidazole) in conservative treatment of non-perforated acute appendicitis.

Methods: The design of this study is prospective clinical study. Study performed in Al-Jumhuri Teaching Hospital, January 2010-January 2012. 102 adult patients 74 male and 28 females between 17-45 years of age complaining from acute appendicitis treated in our unit they were well interrogated and clinically examined, all are send for general urine examination, ultrasound, C-reactive protein and chest X-ray. Those who discovered to have perforated appendicitis or complications were excluded from the study. Then the patients were divided into two equal groups (A and B). Group A: were given 500 mg Ceftriaxone and 500 mg Metronidazole, both intravenously twice daily. Group B: were given in addition to the previous antibiotics regime Tamsulosine 0.4 mg orally once daily. If the patient showed good signs of recovery in the first 24 hours of the treatment, we continue the treatment for the further 5 days. If not we do immediate appendectomy. Follow up for 4 months done to those who were discharged.

Results: During the period of the study, Group A: 41 patients (out of 52) 78.89% got good signs of recovery and relieved within the first 24 hours, while 10 patients needed exploration and appendectomy.

Group B: 49 patients (out of 52) 94.23% gave good signs of recovery and relieved within the first 24 hours only 2 patients needed exploration and appendectomy (no response).

Our index of recovery are decreasing and disappearance of abdominal pain and tenderness, good appetite and positive bowel sound. Those who were discharged after conservative treatment are followed for 4 months for recurrence of appendicitis we got 5 patients who got recurrence and needed appendectomy in group A, while we got only 3 in group B.

Conclusion: Conservative treatment of acute appendicitis with antibiotic is now accepted in many centers. Tamsulosine drug if added to the antibiotic treatment is safe and convey better and fast recovery of the patients and less recurrence rate.

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INTRODUCTION

In spite of the progress in the surgical practice, acute appendicitis still considered as one of the most common surgical emergencies and appendectomy still the most common procedure performed^{1,2}. There has been dramatic reduce in acute appendicitis outcome since the use of antibiotics³. The pathogenesis of acute appendicitis is multifactorial, infection and obstruction⁴ so the use of antibiotics make it feasible to treat acute appendicitis with antibiotics⁵. Tamsulosine (which is alpha-blocker drug used in the treatment of BPH and it is a smooth muscle relaxant) if added to the antibiotic treatment will give better result than the use of antibiotic alone.

MATERIALS AND METHODS

From January 2010 to January 2012, 102 adult patients complaining from non-perforated or complicated acute appendicitis were admitted to our unit, they were 74 male and 28 females, complete history and clinical examination were done. All of the patients send for chest X-ray, general urine examination, WBC count, C-reactive protein, and ultrasound of the abdomen, then the patients were divided into two equal groups considering in them both age and sex of the patients.

Group A: The patients were treated conservatively with antibiotic only 500 mg Ceftriaxone intravenously twice daily and 500 mg Metronidazole intravenously twice daily.

Group B: The patients were treated conservatively with Ceftriaxone and mg Metronidazole intravenously twice daily with Tamsulosine 0.4 mg orally once daily.

Monitoring of the patient within the first 24 hours of the treatment for signs of response (decrease or disappearance of the abdominal pain and tenderness, regaining of the appetite, pulse rate, positive bowel sound). Those who showed good response and recovery we maintain them on the same level of the treatment 5 days, while those who give no signs of response within the first 24 hours of treatment we operated on them immediately, four months follow up are done for those who are discharged from the hospital for recurrence and those who develop recurrence were operated right away.

RESULTS

Group A: Forty-one patients out of fifty-two (78.84%) showed good response and recovery within the first 24 hours of treatment, while ten patients showed no such signs and needed exploration.

Group B: Forty-nine patients out of fifty-two (94.23%) showed good response and recovery, only two patients needed operation (appendectomy).

Table 1 showed the time needed for recovery within the first 24 hours of treatment in relation to the number of patients in both groups.

Regaining of appetite we recorded that at the time the patients started to ask for food within the first 24 hours of starting the treatment, this started between 10-16

hours of treatment, in group B 44 patients started to ask for food, while 38 patients in group A did so.

Positive bowel sound is nearly the same in both groups feeling of well-being is excellent in both groups. However, it started in group B faster than group A. 45 patients gave such response after 16 hours of the treatment versus 38 in group A.

Table 1: Number of patients recovered in both groups in relation to the time table in the first 24 hour of the treatment.

	41 10	11-16 hours	17-24 hours	No response
Group A	6 Patients	20 Patients	15 Patients	10 Patients
Group B	12 Patients	29 Patients	8 Patients	2 Patients

DISCUSSION

In spite of all the medical progress acute appendicitis is still considered as one of the most surgical emergencies and appendectomy is still the most surgical procedure performed^{1,2}. In our center we lack the accurate annual number of appendectomy, in US it is nearly 300,000 operations yearly⁶. The advent of antibiotic cause drastic reduction in both morbidity and mortality of appendectomy⁷. Hence, conservative treatment of appendicitis become possible and gave good results⁸. What we have in this study is that we added the Tamsulosine drug (which is alpha-blocker, smooth muscle relaxant, it is mainly used in BPH) to the antibiotics (ceftriaxone and Metronidazole) in the conservative treatment of non-perforated acute appendicitis. This yielded in excellent results were in group B we got 49 patients who are recovered and relieved in comparison to 41 patients in group A (94.24% versus 78.89%), not only this but also the relation of time to the number of patients recovered shows clearly the priority of group B. **Table 1** the number of patients who needs exploration after the first 24 hour of the treatment clearly shows that group B is better with only 2 patients. However, in group A, 10 patients showed no response and needed an operation. Regaining of appetite and feeling of wellbeing is good in both groups but mainly group B has the priority with 44 patients whereas only 38 patients in group A gave such desire and feeling within 16 hours of treatment, positive bowel sound is similar in both groups.

Recurrence and appendectomy after conservative treatment of acute appendicitis is a major complication⁹. Hence, after four month of follow up we got 3 patients got recurrence and need exploration in group B and 5 patients in group A, we noted as in other study¹⁰ that elevated C-reactive protein is a good indicator of failure of the conservative treatment for that I suggest that patients with CRP to be operated upon from the beginning.

We also see that in acute non perforated appendicitis delaying appendectomy for period 12-24 hours after diagnosis doesn't significantly increase the rate of

perforation and it's safe procedure this is also proved by other study¹¹.

CONCLUSIONS

Tamsulsine drug if added to the antibiotics in the conservative treatment of nonperforated acute appendicitis will give better result than antibiotics alone, this could be explained that Tamsulsine which is an alpha blocker is a smooth muscle fiber relaxant as well and it will result in a better drainage and relieving of the intra luminal pressure in the inflamed appendix.

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