

Non-Complicated Acute Appendicitis in Adults Treated Successfully by Conservative Treatment without Recurrences

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Abstract

Background: Surgical treatment of appendicitis remains the standard treatment, but many cases respond conservatively. Our purpose was the clarification of the clinical, laboratory and imaging characteristics of uncomplicated cases undergoing successful conservative treatment without recurrence.

Methods: 105 adult patients (66 female, 39 male) with non-complicated acute appendicitis. Symptom duration, clinical abdominal examination, body temperature, inflammatory markers, imaging studies results and in-hospital treatment were recorded. No patient had a previous episode of appendicitis.

Results: Duration of symptoms was 2 hours-3 days. Abdominal examination was compatible with appendicitis and findings were localized in the lower right quadrat. The majority (85.7%) had no or low fever ($<37.4^{\circ}\text{C}$). All had leukocytosis (range: 10.000-22.900 WBC/ μL , mean 14.370 ± 2.900 WBC/ μL), 3 patients >20.000 WBC/ μL . All had CRP ≥ 3.36 mg/L (mean 46.8 ± 40.5 mg/L), and 3 >150 mg/L. U/S was performed on 95 patients (combined with trans-vaginal U/S in 19 females) with positive findings of acute appendicitis in 91 (91/95, 95.7%). When faced with inconclusive findings, CT was performed (13 patients) and MRI on one pregnant. In-hospital conservative treatment lasted 1-10 days, overstay was 1-2 days following clinic-laboratory regression. Outpatient, antibiotic treatment followed discharge in 27 patients.

Conclusions: Young patients with non-complicated acute appendicitis and short symptom duration, without rare etiologic pathologies, are candidates for conservative treatment. Diagnosis of non-complicated acute appendicitis is based on combining clinical signs, positive inflammatory markers and imaging studies, excluding complicated cases, generalized peritonitis and sepsis. The inflammation seems self-limited, while the role of anti-inflammatory drugs remains obscure.

Abbreviations: AA = Acute Appendicitis, un-AA = Uncomplicated AA, cAA = Complicated Acute Appendicitis, WBC = White Blood Cells, CRP = C-Reactive Protein, U/S = Ultrasound, CT = Computed Tomography, MRI = Magnetic Resonance Imaging, pts = Patients, NET = Neuroendocrine Tumor

Key words: appendicitis, ultrasound, CT, antibiotics, surgery