Acute Appendicitis, a Surgical or a Medical Condition?

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Introduction

- Recent studies have suggested that antibiotic management of uncomplicated appendicitis approaches the success of surgical appendectomy.
- Antibiotic management has gained acceptance in several geographic areas.
- The primary aim of this study is to identify the current utilization of non-operative management of acute uncomplicated appendicitis in our institutions.

Methods

- Review of ICD-10 codes for appendicitis from January 1, 2019, to October 31, 2021.
- Data obtained from 3 hospitals: UPMC Mercy, UPMC East, and UPMC McKeesport
- Acute uncomplicated appendicitis was defined by duration of symptoms <48 hours and the absence of complications on a CT scan (appendicoliths, phlegmon, abscess, perforation, mass effect, or appendiceal dilatation >13 mm).

Discussion

- Elective non-operative management for acute uncomplicated appendicitis is almost non-existent in our cohort.
- Advantages to medical management:
  - When healthcare resources are scarce, such as a pandemic
  - Geographical/access
  - Preference for no surgical downtime
- Barriers to medical management:
  - Longer length of stay
  - High rate of recurrence
  - Higher re-admission rates
  - Delayed appendectomy
  - Lack of supporting evidence and long-term outcome data
  - Risk of underlying malignancy in elderly
  - Medico-legal liability
  - Lack of standardized antibiotic protocols
  - Lack of endorsement by organizations and providers

Results

- 625 patients were treated for appendicitis during the study period, of whom 586 (94%) underwent operative management and 39 (6%) underwent non-operative management.
- Of the non-operative group: 28 (72%) had complicated appendicitis, 10 (25%) had co-morbid conditions prohibiting surgery, and only 1 (0.16%) underwent medical management out of choice.
- Length of stay for the operative group was 1.2 vs 5.6 days for the non-operative group (p < 0.001).
- Readmission rate within 90 days was lower for operative management, 9.9% vs 25.6% (p < 0.001).
- Mean age of operative group was 42 vs 56 for the non-operative group (p < 0.001).

References

- DA Talan and SD Saverio. Treatment of acute uncomplicated appendicitis. NEJM 2021; 385 (12):1116-23.