

Title: Risk of Appendiceal Neoplasm in Periappendicular Abscess in Patients Treated with Interval Appendectomy vs Follow-up with Magnetic Resonance Imaging

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Setting: University hospitals across Finland

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What is known about this subject?

Appendectomy (now laparoscopic) has been the ‘gold standard’ treatment of appendicitis for many years. This dogma has been challenged with recent RCTs, which have shown that patients with uncomplicated appendicitis can be safely treated with antibiotics instead of surgery. It’s recognised that those treated conservatively may need further treatment within a year. Longer term outcomes of this strategy are yet to be defined.

What this study adds?

Design

This paper published in the March issue of JAMA surgery is a multi-centre randomised controlled trial. This study randomised adult patients who had undergone successful conservative treatment to either interval appendectomy or MRI follow-up, with the intervention occurring 3 months after treatment.

Primary endpoints

The primary endpoint was success of treatment at 1 year (absence of post-op morbidity in operative group/no recurrent in conservative group).

Secondary endpoints

Possible appendiceal or colonic tumour on MRI, or possible inflammatory bowel disease diagnosis, length of stay, and days of sick leave.

Results

The study recruited 30 patients into each arm, giving a total of 60 patients of the 110 needed to reach statistical power. The study was terminated early as 12 patients (20%) were diagnosed with a neoplasm, although this appeared to be 24% in the over-40 group. Three neoplasms were detected in the 25 patients who underwent interval appendectomy, and nine in the MRI follow-up group. Tumours detected included metastatic adenocarcinoma of the caecum, low-grade mucinous appendiceal neoplasms, and carcinoid tumours. As the study is underpowered, it’s not appropriate to compare primary outcomes of the groups.

Conclusions

Caution should be applied to the interpretation of this study. It is underpowered as was terminated early. This may give a false high rate of neoplasms. Equally, the rate of neoplasms may reflect something specific to the treated population such as environmental factors.

Implications for colorectal practice?

There is almost certainly enthusiasm for use of antibiotics to treat appendicitis and reduce usage of the emergency list. Despite the limitations of the study, it does give us pause for thought. Is it possible that complicated appendicitis is associated with a different, and more sinister, aetiology than uncomplicated appendicitis? On its own the study shouldn’t change practice, but perhaps we should exercise caution in the conservative management of complicated disease until the natural history is better understood.