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An Approach to Recurrent Appendicitis: in Vivo Study

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ABSTRACT

Introduction: The formation of faecoliths suggests some kind of stasis of the appendix. Obstruction of the appendix is not found in every case of appendicitis and the cause of inflammation then usually remains unknown. Among those cases in which the removed appendix appears to be quite normal, certain subgroups have been identified. So in this retrospective study, we set out to examine the incidence and characteristics of patients with recurrent appendicitis in our institution.
Material & Methods: The present study was conducted to include all the patients who had undergone appendectomies for the suspected appendicitis in the time period between January 2000 to December 2005. Data were collected from the hospital records.
Results: There were 200 patients who underwent appendectomies. Sixty five patients had normal appendices and so were excluded. Fifty patients had a history and clinical course that fit the definition of recurrent appendicitis. Twenty of the 50 patients had one previous episode of pain while 10 had two prior episodes and 5 had multiple episodes.
Discussion Conclusions: Recurrent appendicitis accounts for about 10% of acute appendicitis in our institution. History of recurrent episodes of right iliac fossa pain typical of appendicitis should be sought in patient with suspected appendicitis and should alert the clinician to the possibility of recurrent appendicitis.

KEYWORDS Appendicitis, recurrent, pain

Introduction

Appendicitis is the term applied to inflammation of the vermiform appendix which, in humans, has no known function. It is rich in lymphoid tissue which gradually atrophies with advancing age.[1] In the vast majority of cases, appendicitis is an acute condition. Appendicitis has always been thought to be the progressive disease, from acute inflammation followed by gangrene, necrosis and finally perforation. Recently there are reports to suggest that the disease can either resolve spontaneously or after antibiotic treatment. Eriksson reported that in his series earlier of 20 patients treated conservatively for clinically diagnosed appendicitis, 7 of them developed acute appendicitis within one year of conservative treatment & than they required surgery.[2, 3] Barber et al also found that 6.5 percent of them had symptoms & signs compatible with appendicitis which resolved spontaneously before their final attendance for a similar complaint when the appendix was removed.[4]

Soon after acute appendicitis was described in 1886 by fitz, chronic appendicitis evolved as a label for patients with a variety of abdominal complaints. Overuse of appendectomy without improvement in symptoms gradually discredited the idea of chronic or recurrent appendicitis.[5] Although once controversial recurrent and chronic appendiceal disease is now well documented in medical literature some authors have proposed the following criteria for chronic appendicitis: persistence of symptoms for more than two weeks, confirmation of chronic appendiceal inflammation on pathologic exam and relief of symptoms following appendectomy. Clinical signs of chronic appendicitis are similar to those of acute appendicitis but have a more prolonged duration.[6]

Early operation has long been considered the most appropriate management for acute appendicitis, but the ideal management approach for the patient presenting with perforated appendicitis has undergone considerable evolution.[7]

Pathophysiology of appendicitis includes the obstruction of the lumen associated with infection. Pressure increases within the appendix as it distends with mucus, causing reduced venous drainage, thrombosis, haemorrhage, oedema and bacterial invasion of the wall of the appendix. [8] Obstruction may be caused by a stricture or kink of the appendix, or blockage of the lumen by worms, a swallowed foreign body or more often a faecolith.[8] The formation of faecoliths suggests some kind of stasis of the appendix. Obstruction of the appendix is not found in every case of appendicitis and the cause of inflammation then usually remains unknown. Among those cases in which the removed appendix appears to be quite normal, certain subgroups have been identified. So in this retrospective study, we set out to examine the incidence and characteristics of patients with recurrent appendicitis in our institution.

Material & Methods:

The present study was conducted to include all the patients who had undergone appendectomies for the suspected appendicitis in the time period between January 2000 to December 2005. Data were collected from the hospital records. Further information including number of previous episodes, number of previous admissions and subsequent treatment was collected. Follow-up via telephone interview was done to assess if they had persistent symptoms postoperatively.

Results

There were 200 patients who underwent appendectomies. Sixty five patients had normal appendices and so were excluded. Among this group of patients with normal appendectomies, two patients had history of recurrent right iliac fossa pain.

Fifty patients had a history and clinical course that fit the definition of recurrent appendicitis. Twenty of the 50 patients had one previous episode of pain while 10 had two prior episodes and 5 had multiple episodes. Only ten patients did not seek medical attention during their previous painful episodes. There were 60 admission episodes among these 33 patients. The follow-up period ranged from 30 to 50 months.

Discussion

To confirm the diagnosis of chronic appendicitis, surgeons not only require a pathology proof but a series of other criteria as well. That is why surgeons and pathologists don't share a common viewpoint on the case.[9] Some authors have referred to chronic appendicitis as a misnomer for recurrent acute appendicitis16. Some others believe that appendicitis either cries or is still but never grumbles. A group of physicians think that repeated episodes of abdominal pain make a diagnosis of appendicitis unlikely.

The importance of early diagnosis and treatment of an inflamed appendix was first outlined by Reginald Fitz in 1886. Subsequent to that, there had been increasing reports of appendectomy done for chronic or recurrent abdominal pain, which did not necessarily have the typical features of appendicitis.[10] This led to poor clinical outcome and the term "recurrent appendicitis" or "chronic appendicitis" fell into disrepute. In 1940, Alvarez reviewed a group of 385 patients who had undergone appendectomy. Of these, 255 did not have a history consistent with appendicitis. Sixty patients became worse postoperatively and only 94 patients were cured. Since then, recurrent appendicitis is often not recognized by many clinicians.[11]

The incidence of recurrent appendicitis in our series is 10%. The diagnosis is necessarily retrospective, as the patient has to be symptom free after surgical removal of the appendix. Our study showed that the patient usually had previous episode of pain less than six months before appendectomy was performed.[12] Fifteen percent of patients had more than three previous episodes of right iliac fossa pain, which is attributed to recurrent inflammation of appendix. A high index of suspicion is necessary to avoid repeated unnecessary admissions.

CONCLUSION

Recurrent appendicitis accounts for about 10% of acute appendicitis in our institution. History of recurrent episodes of right iliac fossa pain typical of appendicitis should be sought in patient with suspected appendicitis and should alert the clinician to the possibility of recurrent appendicitis.

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