

Acute Appendicitis

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ABSTRACT

Appendicitis is a disease caused by inflammation of the vermiform appendix. This organ is a small tubular structure attached to the cecum. Appendicitis can affect people of all ages, from children, adults, to the elderly, and can also affect both males and females. However, studies have found that appendicitis is most commonly found in males, particularly in adolescence to young adulthood. The main cause of appendicitis is an obstruction that occurs in the appendix canal/lumen, which can be caused by the accumulation of hard stool/feces (fecalith), lymphoid tissue hyperplasia, parasites, foreign objects, or tumors. The clinical manifestation found in the case above is tenderness at McBurney's point on physical examination. Laboratory findings show leukocytosis, and the patient's ultrasound results are consistent with acute appendicitis based on the theory. Prompt and appropriate management through appendectomy can reduce complication rates and improve the patient's prognosis.

Keywords: appendicitis; acute appendicitis; male; pain

INTRODUCTION

Appendicitis is a disease caused by inflammation of the vermiform appendix. This organ is a small tubular structure attached to the cecum [1]. Appendicitis can occur acutely (if less than 14 days) or chronically (if more than 14 days). Appendicitis is also one of the most common causes of abdominal pain that requires immediate surgical intervention (urgent) [1]. Appendicitis can affect people of all ages, from children, adults, to the elderly, and can also affect both males and females. However, studies have found that appendicitis is most commonly found in males, particularly in adolescence to young adulthood [2].

The onset of appendicitis usually begins with simple complaints such as mild abdominal pain. This is often unnoticed by patients, so they usually only visit healthcare facilities when the complaints have become very bothersome. In fact, with quick and appropriate treatment, the risk of worsening and serious complications (such as perforation, peritonitis, sepsis, and others) from appendicitis can be avoided [1,3].

The main cause of appendicitis is an obstruction that occurs in the appendix canal/lumen, which can be caused by the accumulation of hard stool/feces (fecalith), lymphoid tissue hyperplasia, parasites, foreign objects, or tumors [1,3]. In addition, one of the factors influencing the occurrence of appendicitis is a low-fiber diet [1]. All of these factors will facilitate and accelerate the onset of appendicitis.

The occurrence of appendicitis begins with an obstruction in the appendix lumen, which can lead to increased intraluminal pressure, impaired blood flow, and excessive bacterial growth. If this is not properly managed, the obstruction process can trigger progressive inflammation and eventually lead to necrosis and perforation [3,4].

The initial clinical presentation of acute appendicitis begins with abdominal pain, which is sometimes nonspecific. However, a characteristic feature of appendicitis is pain in the lower right region of the abdomen. This pain may be accompanied by nausea, vomiting, anorexia, and mild fever [1,2]. During a physical examination, tenderness at McBurney's point and rebound tenderness may be observed [4]. The diagnosis of appendicitis can be established based on medical history, physical examination, and supporting tests such as laboratory tests and abdominal ultrasonography [2,3]. The easiest way to assess the diagnosis of appendicitis is by using the Alvarado score. If the score is 1-4, appendicitis can be ruled out; a score of 5-7 indicates that appendicitis should be considered; and a score of 7-10 confirms the diagnosis of appendicitis.

The management of acute appendicitis must be carried out quickly and appropriately. The therapy includes supportive therapy (such as intravenous fluids, broad-spectrum antibiotics, and analgesics) and definitive therapy (appendectomy) [1,3]. To prevent further complications, an appendectomy is the best option to be performed [4].

CASE REPORT

A 44-year-old male patient with complaints of left abdominal pain for the past 2 days before hospital admission, pain was also felt in the lower right abdomen, with a VAS of 7/10. The pain was described as stabbing, appeared suddenly, did not improve with rest, and gradually worsened over time. The patient did not report any changes in eating habits, experienced nausea, vomited 3 times, but had no fever, cough, runny nose, night sweats, or weight loss. The last bowel movement was 4 days ago, and urination was without complaints. The patient stated no history of previous illnesses or regular medication use.

On physical examination, the findings were: body weight 60.3 kg; height 156 cm; blood pressure 118/72 mmHg; heart rate 108 bpm; respiratory rate 20/min; temperature 37°C; SpO2 98% on room air; eyes: conjunctiva anemic -/-, Sclera icteric -/--; Lungs: vesicular +/+, wheezing -/-, rhonchi -/--; Heart: heart sounds I-II regular, murmur (-), gallop (-); Abdomen: supple, bowel sounds (+) normal, tenderness (+) entire abdomen, McBurney (+), guarding (-); Extremities: acral warm, CRT < 2 seconds. The diagnosis established for the patient above is suspected perforated appendicitis. The management plan is to perform an appendectomy.

The clinical manifestation found in the case above is tenderness at McBurney's point on physical examination. Laboratory findings show leukocytosis,

and the patient's ultrasound results are consistent with acute appendicitis based on the theory [1,2]. Prompt and appropriate management through appendectomy can reduce complication rates and improve the patient's prognosis [3].

CONCLUSION

Acute appendicitis is one of the surgical emergencies that requires early diagnosis and rapid and proper management. Proper clinical management is very important to prevent serious complications and deterioration such as perforation and peritonitis [1,3]. In addition, with appropriate treatment, appendicitis can recover well without serious complications.

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