Pain in the Right Lower Quadrant Without Appendix

Appendiks Olmadan Sağ Alt Kadranda Ağrı

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Özet

Apendiksin agenezisi birçok deneyimli cerrah tarafından bile nadir görülen klinik bir durumdur. Bu duruma akut apandisit tanısıyla ameliyata alınan 100 000 olguda 1 olarak rastlanılmaktadır. Daha önce herhangi bir operasyon geçirmemiş 20 yaşındaki erkek hasta akut apandisit semptomlarıyla acil servise kabul edilip ameliyata alındı. Ancak yapılan eksplorasyonda apendiks bulunamadı. Akut apandisit semptomlarıyla gelen olgudan öncelikle dikkatli bir anamnez alınmalı, özellikle geçirilmiş operasyonlar bakımından iyi sorgulanmalı ve muayene edilmelidir. Apendiks agenezisi tanısına karar vermeden önce ileo-çekal bölge ve çıkan kolon mobilize edilerek kapsamlı ve titiz bir ekplorasyon yapılmalıdır. Ayrıca bütün bu işlemler yapılırken hassas olan ileo-çekal bölge travmatize edilmemelidir. Akut apandisit semptomları olan olgularda appendiks agenezisi olabileceği akılda bulundurulmalıdır.

Anahtar Kelimeler

Apendiks Yokluğu; Apendiks Agenezisi

Abstract

Appendix agenesis is rarely seen, even for many experienced surgeons. The incidence of appendix agenesis has been reported as 1 per 100,000 cases admitted for surgery with a diagnosis of acute appendicitis. A 20-year old male with no history of surgery presented to the emergency department with the symptoms of acute appendicitis and was admitted for surgery. No appendix was found in the surgical exploration. Cases presenting with the symptoms of acute appendicitis should have a detailed anamnesis taken with careful questioning, particularly related to previous surgery and a thorough physical examination should be performed. Before establishing the diagnosis of appendix agenesis, a comprehensive and careful exploration should be conducted after mobilizing the ileo-cecal region and ascending-colon. In addition, care should be taken to avoid injuring the ileo-cecal region, which is highly sensitive. Appendix agenesis should be kept in mind in cases presenting with the symptoms of acute appendicitis.

Keywords

Appendix Absence; Appendix Agenesis

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Introduction

Congenital absence of the appendix is defined as the agenesis or atresia of appendix. Appendix agenesis was first described by Morgagni in 1718 [1]. The incidence of appendix agenesis in laparotomies applied with initial diagnosis of acute appendicitis has been reported as 1/100,000 [1, 2]. Diagnosis of appendix agenesis is made by laparotomy or laparoscopy [1-3].

In this report, we present a case who was initially diagnosed with acute appendicitis symptoms by diagnostic laparoscopy and later diagnosed with vermiform appendix agenesis during surgical exploration. This uncommon clinical event is presented in light of the literature.

Case Report

A 20-year old male with no history of previous surgery presented to the emergency department with a two-day history of nausea, vomiting, lack of appetite and abdominal pain which had started in the in the right lower quadrant.

The patient had no history of previous surgery and no sign of appendicitis such as perforated appendix. On auscultation, the intestinal sounds were normoactive. In the abdominal examination, there was sensitivity and muscular defense on palpation in the right lower quadrant. No clinical sign was found in the rectal examination and the other system examinations were normal.

Laboratory findings were as follows: leukocytes; 11,400/ml (4000-8000) and other biochemistry results were normal. No appendix was observed on ultrasound. The findings initially suggested the presence of acute appendicitis. In the diagnostic laparoscopy, since the appendix was not visualized in the location of the cecum, the cecum was mobilized and the exploration was extended from the ileo-cecal region to ascending-colon; however, no appendix was found. The patient was discharged on the second day after operation since the complaints recovered and the laboratory parameters returned to normal. The patient has been followed up for a year and no problem has been detected so far.

Discussion

Appendix agenesis is a rarely seen clinical event which was first described by Morgagni in 1718. Although the appendix agenesis is likely to be diagnosed during abdominal surgery, the definitive diagnosis is made by laparoscopy or laparotomy [1-3]. In our study, the patient had no history of previous surgery. The diagnosis of vermiform appendix agenesis was established during diagnostic laparoscopy. In such situations, the presence of similar previous symptoms should be investigated [4-5]. If laparotomy is performed with the suspicion of acute appendicitis, all the possibilities that mimic these symptoms should be investigated. Moreover, the patient should be questioned as to whether or not these or similar symptoms had previously occurred. Most common of these symptoms include terminal ileitis, ectopic pregnancy rupture, Meckel's diverticulum, mesenteric lymphadenitis (more often in children), salpingo-oophoritis, and ovarian cyst rupture. In some cases, the appendix may be resorbed by autoamputation following perforated appendicitis [4]. Urinary infections and the stones at the lower ureter may also exhibit similar symptoms. However, none of these symptoms had been experienced by our patient. The absence of appendix may be in the form of congenital agenesis or atresia of appendix, or rudimentary appendix [6-8]. Shand et al reported that the use of thalidomide during pregnancy caused appendix agenesis during pregnancy (in utero) [6]. In our study, the patient had no history of in-utero usage of thalidomide. In some studies, appendix agenesis has been reported with intestinal malformations [7-8]. In our patient, no intestinal malformation was observed. To avoid incorrect diagnosis, history of previous surgeries and appendectomy should be carefully investigated [2]. In our patient, no history of surgery or intra-abdominal infection that could cause autoamputation was detected.

When the appendix cannot be seen easily, the cecum should be fully mobilized, the site of the convergence of the three teniacoli and ascending colon should be explored, and the ileo-cecal region should be carefully examined [1-4]. In our patient, although the exploration was extended from the convergence of the three tenia coli to ascending colon, no appendix was found. As above mentioned, there may be several reasons for the pain in the right lower quadrant. When there is no positive sign, a stone at the lower ureter is the most probable cause. In our patient, no positive sign that could cause the pain in the right lower quadrant was found, except for the stone at the lower ureter which had fallen spontaneously. We considered that this situation was the reason for the spontaneous recovery of the symptoms.

The aim of this report was to emphasize the clinical importance of appendix agenesis, rather than the reasons causing this clinical event. Accordingly, we believe that the presentation of this rare case will be beneficial for the early diagnosis of patients with appendix agenesis who present with a pain in the right lower quadrant.

Conclusion

Vermiform appendix agenesis is a rare occurrence. Medical history of the patient is of prime importance since resorption might have occurred in perforated appendicitis or the appendix might have been removed in a previous laparotomy.

Competing interests

The authors declare that they have no competing interests.

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