

Infantile Amyand's Hernia: Case Report

İnfanıl Amyand Fıtığı

Murat ALKAN, MD,^a
İlknur BANLI CESUR, MD,^a
Serdar H. İSKİT, MD,^a
Recep TUNCER, MD,^a
Işık OLCAY, MD^a

^aDepartment of Pediatric Surgery,
Çukurova University
Faculty of Medicine, Adana

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Yazışma Adresi/Correspondence:
Murat ALKAN, MD
Çukurova University
Faculty of Medicine,
Department of Pediatric Surgery,
Adana
TÜRKİYE/TURKEY
drmuratalkan@hotmail.com

ABSTRACT We report an extremely rare case of an incarcerated and perforated appendicitis within an inguinal hernia in an infant. A 3,5-month-old was admitted with clinical signs of incarcerated right inguinal hernia and localized tenderness and hyperemia in the right inguinal region. He underwent emergency surgery and the operative findings included an inflamed appendix. Although perforated appendicitis in an inguinal hernia was reported as complicated Amyand's hernia in adults, a few cases under one year old with perforated appendicitis in an inguinal hernia have been reported in the literature. We point out the need to consider perforated appendicitis in the differential diagnosis of incarcerated right inguinal hernia in infants.

Key Words: Hernia, inguinal; hernia

ÖZET Çalışmamızda, infantlarda oldukça nadir olarak izlenen inkarsere inguinal fitik kesesi içerisinde perfore apandisit saptanan olgunun bulguları sunulmuştur. Sağ inguinal bölgede hiperemi ve lokalize şişlik nedeniyle başvuran 3,5 aylık erkek olguda, klinik muayenede inkarsere sağ inguinal herni saptandı. Acil ameliyata alınan olguda, operasyon sırasında fitik kesesi içerisinde inflamme apandiks dokusu izlendi. Komplike Amyand fitiği olarak isimlendirilen inguinal fitik kesesi içerisinde perfore apandisit yetişkinlerde tanımlanmasına rağmen, inguinal fitik kesesi içerisinde perfore apandisit 1 yaş altındaki çocuklarda literatürde birkaç olguda tanımlanmıştır. Infantlardaki inkarsere sağ inguinal fitiklerin ayırıcı tanısında perfore apandisit akılda tutulmalıdır.

Anahtar Kelimeler: İnguinal fitik; fitik

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The presence of a normal or inflamed vermiform appendix in an incarcerated inguinal hernia is termed Amyand's hernia. The presence of an inflamed appendix within an inguinal hernia sac is a rare occurrence with a frequency of 0.13-1% of all cases of appendicitis.^{1,2} Amyand's hernia is an extremely rare entity in an infant. In the literature, there are three infants reported with acute appendicitis, two neonates with perforated appendicitis in the inguinal hernia sac before.³⁻⁶ We present an infant whose perforated appendicitis was found in the inguinal hernia sac and speculated about the fact of the perforation of an appendix in an inguinal hernia in an infant.

CASE REPORT

A 3.5-month-old boy was admitted to the emergency service complaining of vomiting, painful and irreducible swelling in the right inguinal region for the last three and half hours. On physical examination, a right inguinal irreducible, erythematous and painful mass was found (Figure 1). The abdominal X-ray showed sign of obstructed bowels (Figure 2). Laboratory evaluation was remarkable only for a white blood cell count of 13.700. An emergency operation was performed with diagnosis of strangulated inguinal hernia. He underwent surgical exploration through a transverse inguinal incision. An inflamed appendix with a perforation on its base was found intraoperatively within the hernia sac (Figure 3). Appendicectomy and primary hernia repair were performed through inguinal incision. Pathological examination of the specimen revealed perforated appendicitis.

DISCUSSION

The Amyand's hernia is defined as an inguinal hernia with the hernial sac containing an acute appendicitis. Claudis Amyand performed the first successful appendectomy on an 11-year-old boy within an inguinal hernia sac in 1735.⁷ Since then, an inguinal hernia containing an appendix has been named Amyand's hernia. Although Claudis Amyand performed the operation on an 11-year-old boy, the vast majority of the patients reported be-



FIGURE 1: Irreducible and erythematous mass in the right inguinal region.



FIGURE 2: The direct abdominal X-ray shows sign of obstructed bowels.

fore are adults. With the largest series, Sharma et al reported 18 cases with a median age of 42-years-old (Range 12-89).⁸

In the literature, there are 37 reports that reviews the case reports with Amyand's hernia. In four of these case reports, they found out appendicitis in an inguinal hernia in three neonates, and two infants (8 and 9-month-old).³⁻⁶ Acute appendicitis in infants occurs in 2% of pediatric appendicitis cases. Preoperative diagnosis of appendicitis within the inguinal hernia requires high clinical suspicion and awareness and is extremely difficult because of atypical symptoms.⁹

In our case, the patient had no signs of local peritonitis in the right iliac fossa. He had tenderness and hyperemia in the inguinal region. As we made the inguinal exploration without the reduction of strangulated intestinal loop, we noticed that the appendix was perforated at the base of the cecum in the internal ring level. In the literature, a similar case was reported by Livaditi



FIGURE 3: Intraoperative photograph of the inflamed semi-disconnected appendix from its base the hernia sac.

et al, and they assumed that the inflammation of the appendix was secondary due to the compression of the neck of the appendix from the internal ring. The compression provoked vascular compromise, bacterial growth, inflammation and subsequent perforation.³ Without any peritoneal signs, localised inguinal inflammation of the appendix and disconnection at the base supports this hypothesis.

Because it is not often clinically suspected, the diagnosis of Amyand's hernia is usually made intraoperatively. Appendectomy and hernia repair is the treatment of choice. We point out that, perforated appendicitis should always be kept in mind in the differential diagnosis in cases with clinical signs of incarcerated right inguinal hernias in infants.

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