



## An overlooked perforated appendicitis presenting with anal pus discharge

### Anal pü akıntısı olup, tanısı atlanmış perfore apendisit vakası

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#### Abstract

Acute appendicitis is the most common cause of emergency admissions all over the world. Perforation, abscess, plastron and fistula formation into adjacent organs are among the most serious complications of acute appendicitis. In the literature, many case reports have been published on colo-appendiceal fistula secondary to inflammatory bowel diseases and the development of diverticulitis. However, only a few case reports have been presented in colo-appendicular fistulisation secondary to complicated appendicitis. Here, we present a 46-year-old male patient who developed periappendicular abscess formation and sigmoid appendiceal fistula after appendix perforation. . In the colonoscopy upon pus discharge from the anus, purulent material in the lumen was observed about 25 cm proximal of the anal verge at the sigmoid colon with a view of external compression. Another interesting aspect of this patient is that the fistula mouth in the sigmoid colon, which could not be displayed during the operation, was spontaneously closed.

**Keywords:** Appendicitis; Abscess formation; fistulization; sigmoide-appendiceal fistulization.

#### Öz

Akut apendisit dünyada acil başvuruların ensik nedenleri arasındadır. Perforasyon, abse, plastron ve fistül oluşumu akut apendisitin sık görülen komplikasyonları arasındadır. Literatürde divertikülit gelişimi sonrası ve inflamatuvar barsak hastalığına sekonder gelişen kolo-apendisiyal fistüller vaka sunumları şeklinde yayınlanmıştır. Ancak komplike apendisite sekonder gelişen kolo-apendiküler fistül vakaları sadece birkaç vaka sunumu şeklinde yayınlanmıştır. Biz bu vakada perfore apendisit sonrası peri-apendiküler abse gelişimi ve sonrasında sigmoide-apendisiyal fistül gelişen 46 yaşında erkek hastayı sunduk. Anüsten pü gelmesi üzerine yapılan kolonoskopide anal werge'den yaklaşık 25 cm uzaklıkta sigmoid kolonda dıştan bası izlendi. Bizim vakanın diğer bir ilgi çekici yönü de fistül geliştikten sonra operasyona alınan hastada fistül traktının spontan kapanmasıdır

**Anahtar Kelimeler:** Apendisit; Abse oluşumu; Fistülizasyon; Sigmoide-apendisiyal fistül.

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## INTRODUCTION

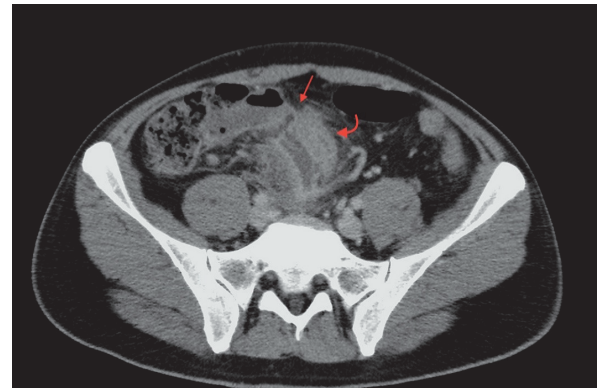
Acute appendicitis is in the lead among the most common causes of acute abdomen. The most widely accepted opinion in the pathogenesis of acute appendicitis is clogging of the lumen with various reasons, the progression of inflammatory process and the pressure increase which leads to necrosis and perforation in intraluminal appendiceal wall. Perforated appendicitis is a pathological condition that develops in the case of not intervening of acute appendicitis. Although acute appendicitis is a common disease, the fistulization of organs is rare (1). Following the abscess formation after acute appendicitis, the fistulisation of skin or visceral organ is rarely seen (2). These complications generally develop after perforated appendicitis (3). In this study, we aim to present the case of a perforated appendicitis developing as a complication of sigmoidoappendiceal fistula.

## CASE REPORT

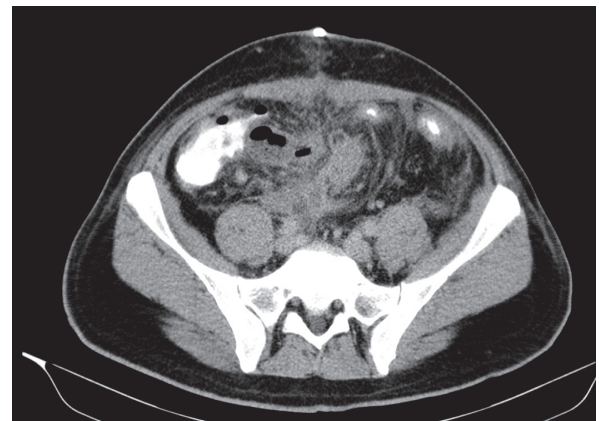
A 46-year-old male patient with complaints of anal pus and abdominal pain was admitted to the gastroenterology clinic. The patient stated that his abdominal pain had started one month ago and it had increased recently. Moreover, he said that pus discharge from the rectum also started three days ago and abdominal pain simultaneously relieved with it. On physical examination, there were no obvious features except evident sensitivity in suprapubic area. In blood tests, leukocytes, hemoglobin and CRP were measured as 16.100 µg/dL, 13.7 g/dL and 9.77 mg/dL, respectively. In abdominal ultrasonography at the beginning period of his complaints, a few pieces of lymph nodes with a maximum size of 1 cm were determined at the right lower of abdominal quadrant and edema was also found at the wall of bowel. In the colonoscopy upon pus discharge from the anus, purulent material in the lumen was observed about 25 cm proximal of the anal verge at the sigmoid colon with a view of external compression. In order to evaluate all the abdominal cavity, the computed tomography was taken giving intravenous contrast. The tomography revealed perforated appendicitis which begins from the ileocecal region to the sigmoid colon and the abscess cavity which fistulized to the sigmoid colon with 5\*2 cm in size (Figure 1).

Considering the available clinical and radiological examinations of the patient, he was taken into surgery. Laparotomy was performed using umbilical midline incision. In the exploration, it was seen that the sigmoid colon was redundant and adherent to the ileocecal region in the lower right quadrant. By performing careful obtuse and sharp dissection, an amount of purulent material drained after opening dense adhesions between the sigmoid colon and ileocecal region. We observed a perforated appendix from the tip and significant increase in the appendix in size. Since there was no visible fistula opening in the sigmoid colon, additional operation, except appendectomy, was not considered. The surgery was terminated after applying

an abdominal drain. In the postoperative period, metronidazole and ceftriaxone treatments were given. Control tomography was taken on the 3rd post-operative day and abscess and fistula formations were not detected (Figure 2). Moreover, no other accumulation was found in the abdomen. The patient was discharged on the 7th day without any problems.



**Figure 1.** The fistula between abscess cavity and sigmoid colon in the patient.



**Figure 2.** The improved fistula tract and abscess formation on the 3rd post-operative day.

## DISCUSSION

The fistulization of perforated appendicitis to neighbour organs is rarely seen (4). Different types of fistulas such as appendico vesical, appendico intestinal, appendico uterine and appendico cutaneous have been reported to this day (5). Kjellman suggests that the main mechanism in the formation of fistula after acute appendicitis is spontaneous rupture of the inflamed appendix (6). In prolonged cases in which the diagnosis of acute appendicitis is overlooked, it should be kept in mind that intra-abdominal abscess may develop secondary to perforated appendicitis and abscess may fistulize to colon in the patients who describe pus coming out of the anus. Another interesting aspect of this patient is that the fistula mouth in the sigmoid colon, which could not be displayed during the operation, was spontaneously closed.

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