

# Report of a case mimicking the acute appendicitis; small bowel perforation due to olive leaf

İsmail Tirnova, M.D.,<sup>1</sup> Özkan Balçın, M.D.,<sup>2</sup> Pınar Taşar, M.D.,<sup>2</sup>

<sup>1</sup>Department of General Surgery, Başkent University, İstanbul-Türkiye

<sup>2</sup>Department of General Surgery, Uludağ University, Bursa-Türkiye

## ABSTRACT

Abdominal pain is one of the most frequent causes of emergency room admissions. Acute appendicitis is the most common surgical pathology in these patients. Foreign body ingestion is a quite rare pathology that takes place in list of differential diagnosis of acute appendicitis. We presented a dry olive leaf ingestion case in this paper.

**Keywords:** Acute appendicitis; foreign body; perforation.

## INTRODUCTION

Abdominal pain is one of the most frequent causes of emergency room (ER) admissions. Acute appendicitis is the most common surgical pathology in these patients and affects approximately 7% of the population.<sup>[1]</sup> Urinary tract pathologies, inflammatory bowel diseases, peptic ulcer perforations, intestinal parasitosis, malignancies, and Meckel's diverticulitis should be considered in differential diagnosis of such a patient. In addition to these pathologies, foreign body ingestion is a quite rare pathology that takes place in this list. In this article, we present a case of small intestinal perforation caused by ingestion of dry olive leaf, which arouses suspicion of acute appendicitis in the clinic presentation.

## CASE REPORT

Written consent for anonymous publication was obtained from the patient. A 58 year-old male patient was admitted to the ER for abdominal pain beginning around the umbilicus 2 days ago and eventually localizing to the lower right quadrant. Surgery department was consulted with an initial diagnosis of acute appendicitis. There was neither abdominal surgical

intervention nor systemic disease in patient history. There were no signs of anorexia, nausea, vomiting, dizziness, weight loss, night sweats, acute/chronic diarrhea, or constipation in the history. Clinical examination revealed voluntary defense in the lower right quadrant and minimal tenderness on the other parts of abdomen. Patient was afebrile. Heart rate was 86 beat/min and the blood pressure measured 130/95 mmHg. White blood cell count 15,600/mL, hemoglobin 14.2 g/mL, and platelet count 126,000/mL were detected in the laboratory tests. There were several air-fluid levels and there was no free air under the diaphragm at X-rays. Ultrasound assessment was compatible with plastron appendicitis.

Computerized tomography (CT) scans revealed a linear lesion in the intestinal lumen of the right lower quadrant, causing a partial luminal obliteration and edema at antero-lateral side of the caecum (Fig. 1). Operation decision was taken due to perforation caused by foreign body. Midline laparotomy was performed and a 5 cm-length hyperemic and edematous segment was found at the mid-jejunal intestinal segment with a microperforation area. There was also edema and inflammation in the terminal ileum. There was reactive in-

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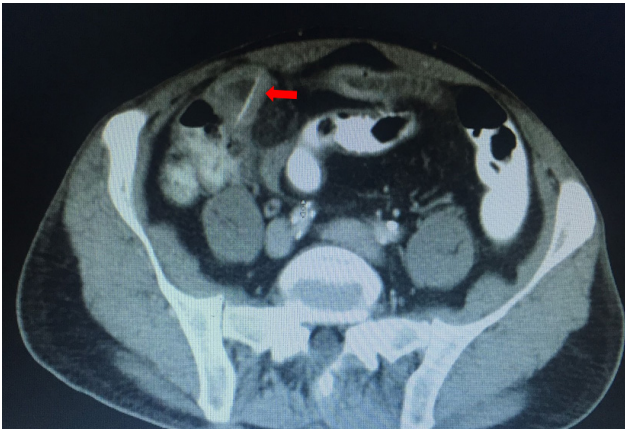
Address for correspondence: İsmail Tirnova, M.D.

Başkent University İstanbul Hospital, İstanbul, Türkiye

E-mail: tirnova77@gmail.com

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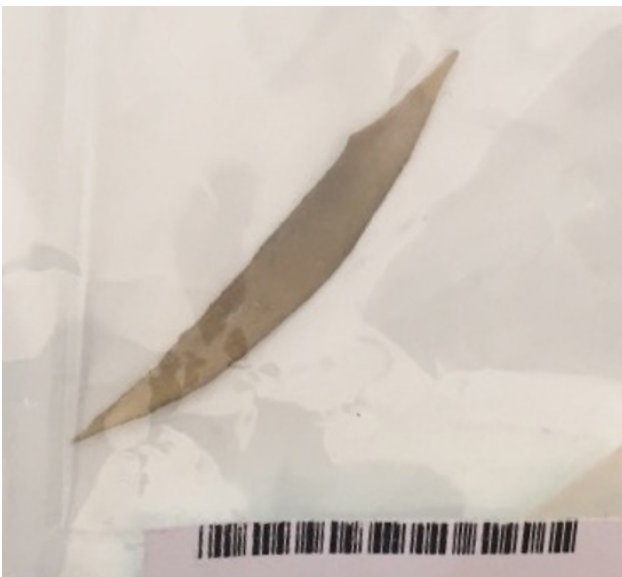


**Figure 1.** Computerized tomography scans revealed a linear lesion in the intestinal lumen (Red arrow)

inflammation and adhesions around the cecum, secondary to inflammation. A foreign body was found in the lumen of the terminal ileum with palpation. Enterotomy was performed to access the hard and flat 3–4 cm-foreign body. It was understood that the foreign body was an ingested dry olive leaf (Fig. 2). Enterotomy site and mid-jejunal minimal perforated area were repaired primarily with double layered stitches. No other pathology was found at the exploration. The patient was discharged eventless.

## DISCUSSION

Mortality has been reported rarely in foreign body ingesting cases, although patients often recover without problems.<sup>[2]</sup> The clinical outcomes vary according to the kind of the ingested foreign body, the underlying pathology of the patient, and the timing of the medical intervention. Various foreign bodies such as toothpicks, fishbones, chicken, or cattle bones and dentures have been reported in the literature.<sup>[3,4]</sup> The ingested foreign bodies are expected to be stuck in anatomic-



**Figure 2.** The cause of the perforation; olive leaf

cally stenosis areas. The cricopharyngeal sphincter is the first one of them. Once the foreign body passes from the esophagus to the gastric cavity, it usually passes through to the intestinal segments easily.<sup>[5]</sup> The patient's clinic varies from non-specific abdominal pain to acute abdomen. The most feared complications are bleeding and perforation at the gastrointestinal tract. Fortunately, perforations occur in about 1% of all cases.<sup>[6]</sup> Perforation usually settles on the terminal ileum.<sup>[7]</sup> Duodenum and rectosigmoid segments, which their lumen narrowed or angulated, are also other high risk areas for perforation. The most reasonable reasons to confuse this case as an appendicitis were location of the perforation and the inflammatory processes. Signs of intraluminal injury mimicked the visceral pain of appendicitis and once the perforation occurred, it caused the peritoneal irritation. In this case, there was no subdiaphragmatic free air in abdominal X-rays before the operation. The rate of free air exposure in the literature has been reported as 16%.<sup>[8]</sup> On the other hand, outcomes of CT scans of suspicious cases may vary due to the structure of the ingested body. Calcifications may be seen in bone-like structures, while findings of toothpicks may be similar to nonspecific inflammation simply. After the operation, it was learned that the patient's profession was farming and he ate some meals at the farm. The probable scenario was that the patient had swallowed the dry olive leaf unintentionally during the meal. Perforation due to bay leaf ingestion was reported before.<sup>[9]</sup> To the best of our knowledge, perforation due to olive leaf ingestion was reported for the first time in the literature.

## Conclusion

Ingested foreign bodies may cause peritoneal irritation and acute appendicitis-mimicking clinic presentation. Definitive diagnosis can only be achieved with careful examination and appropriate imaging techniques.

**Informed Consent:** Written informed consent was obtained from the patient for the publication of the case report and the accompanying images.

**Peer-review:** Externally peer-reviewed.

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**Conflict of Interest:** None declared.

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## OLGU SUNUMU - ÖZ

### Akut apandisitisi taklit eden bir olgu; Zeytin yaprağına bağlı ince bağırsak perforasyonu

Dr. İsmail Tirnova,<sup>1</sup> Dr. Özkan Balçın,<sup>2</sup> Dr. Pınar Taşar<sup>2</sup>

<sup>1</sup>Başkent Üniversitesi Tıp Fakültesi, Genel Cerrahi Anabilim Dalı, İstanbul

<sup>2</sup>Uludağ Üniversitesi Tıp Fakültesi, Genel Cerrahi Anabilim Dalı, Bursa

Karın ağrısı, acil servis başvurularının en sık sebeplerinden birisidir. Akut apandisit ise bu hastalarda karşılaşılan en sık cerrahi patolojilerden birisidir. Yabancı cisim yutulması, akut apandisit en nadir görülen ayırıcı tanılarından birisidir. Bu olguda, zeytin yaprağı yutulmasına bağlı gelişen akut tabloyu sunuyoruz.

Anahtar sözcükler: Akut apandisit; perforasyon; yabancı cisim.

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