Dicle Tıp Dergisi / Dicle Med J (2025) 52 (4) : 899-902

www.diclemedj.org

Case Report / Olgu Sunumu

A Rare Clinical Condition Mimicking Acute Appendicitis: Valentino Syndrome

Özgür Genç[1], **Yusuf Emre Altundal**[2]

1 Department of Radiology, Istanbul Aydın University VM Medical Park Florya Hospital, Istanbul, - Department of Radiology, Aydın, Türkiye

2 Department of General Surgery, Istanbul Aydın University VM Medical Park Florya Hospital, Istanbul,– Department of General Surgery, Aydın, Türkiye

Received: 12.08.2025; Revised: 21.10.2025; Accepted: 23.10.2025

Abstract

Objective: Valentino syndrome is a rare clinical entity that mimics acute appendicitis due to the retroperitoneal spread of a duodenal ulcer perforation. We present a case diagnosed preoperatively and treated laparoscopically.

Methods: A 51-year-old man presented with acute abdominal pain radiating from the epigastrium to the right lower quadrant. Physical examination revealed upper-quadrant tenderness and rebound. Laboratory testing showed a mild elevation in C-reactive protein (4.1 mg/L).

Results: Contrast-enhanced CT demonstrated intramural gas in the gastric antrum, inflammatory stranding within the periduodenal fat planes, free air anterior to the left hepatic lobe, and a reactively thickened appendix. A preoperative diagnosis of "Valentino appendicitis" was made. Laparoscopy confirmed a prepyloric perforation, which was repaired using a Graham patch. Appendectomy was not performed.

Conclusion: Valentino syndrome can be recognized preoperatively through careful clinical and radiologic assessment.

Keywords: Valentino syndrome; duodenal ulcer perforation; acute appendicitis; preoperative diagnosis; laparoscopic surgery

Akut Apandisiti Taklit Eden Nadir Bir Klinik Durum: Valentino Sendromu

Öz

Amaç: Valentino sendromu, duodenal ülser perforasyonunun retroperitoneal yayılımı sonucu akut apandisiti taklit eden nadir bir klinik durumdur. Bu çalışmada preoperatif tanı konulup laparoskopik tedavi edilen bir olgu sunulmaktadır.

Yöntemler: Elli bir yaşında erkek hasta, epigastriumdan sağ alt kadrana yayılan akut karın ağrısı ile başvurdu. Fizik muayenede üst kadranda hassasiyet ve rebound, laboratuvar tetkiklerinde hafif CRP yüksekliği (4.1 mg/L) izlendi.

Bulgular: Kontrastlı BT'de gastrik antrumda intramural hava, periduodenal yağlı planlarda inflamasyon, sol hepatik lob anteriorunda serbest hava ve reaktif olarak kalınlığı artmış apendiks saptandı. Preoperatif olarak "Valentino apandisiti" tanısı konuldu. Laparoskopide prepilörik perforasyon doğrulandı ve Graham patch ile onarıldı. Apendektomi yapılmadı.

Sonuç: Valentino sendromu, dikkatli klinik ve radyolojik değerlendirme ile preoperatif olarak tanınabilir; bu sayede apendiks-koruyucu cerrahi uygulanabilir.

Anahtar kelimeler: Valentino sendromu, duodenal ülser perforasyonu, akut apandisit, preoperatif tanı, laparoskopik cerrahi.

DOI: 10.5798/dicletip.1841283

Correspondence / Yazışma Adresi: *Özgür Genç, Department of Radiology, Istanbul Aydın University VM Medical Park Florya Hospital, Aydın, Türkiye e-mail: drozgurgenc@gmail.com*

INTRODUCTION

Valentino syndrome is a rare clinical condition that mimics acute appendicitis and typically results from proximal gastrointestinal system perforations, particularly duodenal ulcers[1]. This syndrome is named after the famous actor Rudolph Valentino, who died in 1926 from a perforated peptic ulcer that was initially misdiagnosed as acute appendicitis[2].

Pathophysiologically, duodenal perforation is explained by the progression of gastric-intestinal contents into the retroperitoneal space along the right paracolic gutter, causing localized peritoneal irritation in the right lower quadrant[3]. This condition mimics the clinical findings of acute appendicitis and complicates diagnosis.

The number of case reports on Valentino syndrome in the literature is limited, and preoperative diagnosis can be challenging[4]. With the advancement of modern multi-detector computed tomography technology, radiologists have begun to diagnose this rare condition preoperatively[5]. This case presentation contributes to the literature by demonstrating that preoperative diagnosis of Valentino syndrome allows for appendix-preserving treatment.

CASE REPORT

Ethical Statement: Written informed consent was obtained from the patient for the purpose of this case report.

A 51-year-old male patient presented to the emergency department with acute abdominal pain. The pain originated in the epigastric region and radiated to the right lower quadrant. There was no history of peptic ulcer disease or regular use of nonsteroidal anti-inflammatory drugs.

Physical examination revealed tenderness and rebound tenderness in the upper quadrant during abdominal examination.

Laboratory tests showed mildly elevated inflammatory markers (CRP: 4.1 mg/L) and a white blood cell count above the normal range (10.21 K/µL).

No free air was detected in the chest and abdominal X-ray. Ultrasound showed a thickened appendix, and a preliminary diagnosis of acute appendicitis was reported. Due to the patient's atypical persistent upper quadrant pain, a contrast-enhanced CT scan was performed to rule out additional pathologies. The examination was performed using a Philips Incisive 128-slice device using nonionic iodinated contrast (350 mg I/mL; 100 mL). The CT scan revealed intramural air in the anterior wall of the gastric antrum, inflammatory changes in the periduodenal fat layers (Figure 1), free air in front of the left hepatic lobe (Figure 2), and a thickened appendix approximately 9 mm in diameter (Figure 3).

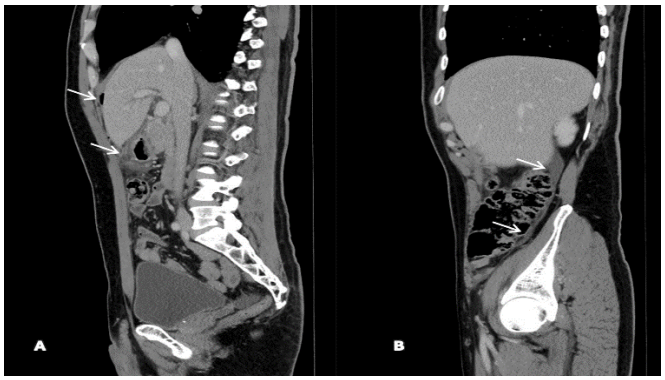

Figure 1. Contrast-Enhanced Abdominal CT – Sagittal Sections **A.** Free intraperitoneal air anterior to the liver.

B. Free fluid extending retroperitoneally along the posterior aspect of the cecum and ascending colon.

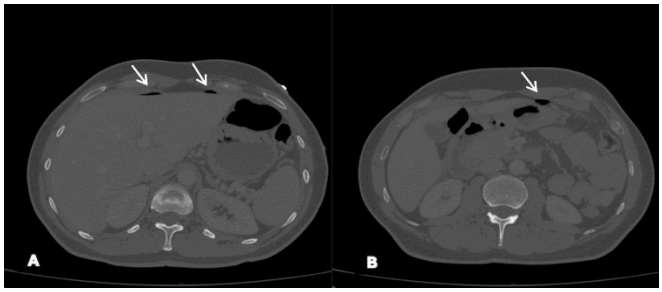

Figure 2. Contrast-Enhanced Abdominal CT – Axial Sections **A.** Free intraperitoneal air anterior to the left hepatic lobe and in the area adjacent to the stomach **B.** Free air anterior to the gastroduodenal junction.

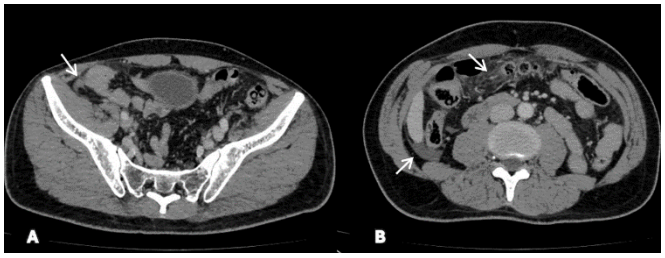

Figure 3. Contrast-Enhanced Abdominal CT – Axial Sections **A.** Reactively thickened appendix with increased inflammatory density and free fluid in the surrounding adipose tissue **B.** Free fluid in the perihepatic region and inflammatory densities in the perienteric areas.

The radiologist diagnosed the findings as gastric antrum perforation and accompanying appendiceal changes (reactive changes or accompanying appendicitis). Additionally, he noted that reactive changes in the appendix (Valentino Syndrome) secondary to gastric perforation should be considered.

Laparoscopic surgery was planned with a preliminary diagnosis of peptic ulcer perforation and accompanying reactive changes in the appendix (Valentino Syndrome). During the surgery, performed by a general surgeon using a three-port laparoscopic technique, a small perforation was detected in the prepyloric region. The appendix appeared reactive and was not inflamed; therefore, an appendectomy was not performed. The perforation was repaired using the Graham patch technique, and the repair was confirmed to be successful using a methylene blue leak test. A Jackson-Pratt drain was placed for drainage.

The patient experienced no complications during the postoperative period. Intravenous antibiotic treatment was administered, and the patient was gradually transitioned to oral feeding. The patient was discharged with oral proton pump inhibitor treatment. No complications were detected during follow-up examinations.

DISCUSSION

The computed tomography findings identified in our case—intramural air in the gastric antrum, free air, and a thickened appearance in the appendix—were consistent with the findings of Valentino syndrome described in the literature[6]. The presence of intramural air in the anterior wall of the gastric antrum indicated the location of the perforation. At the same time, the thickening of the appendix was interpreted as indicative of reactive changes.

In our surgical approach, laparoscopic techniques were used while preserving the appendix. The reactive appearance of the appendix, without actual inflammatory findings, supported the diagnosis of Valentino syndrome. The Graham patch repair technique is an effective method for small perforations, and the methylene blue leak test confirmed the success of the repair[7]. This case demonstrates that appendectomy is not always indicated in Valentino syndrome and that the appendix can be preserved when it is reactively affected.

The number of case reports related to Valentino syndrome in the literature is limited[8,9]. A study published by Mahajan et al. in 2022, which examined 31 cases, reported that 83.9% of patients were male, with a mean age of 39[9]. In this case, preoperative diagnosis ensured appropriate surgical planning and prevented unnecessary appendectomy.

Amann et al. emphasized that Valentino syndrome is a life-threatening condition and that early diagnosis can reduce mortality and morbidity[10]. The clinical significance of this case

is that it demonstrates radiologists can use computed tomography technology to diagnose Valentino syndrome preoperatively.

CONCLUSION

Valentino syndrome, although rare, is an important clinical condition that can mimic acute appendicitis. This case demonstrates that preoperative diagnosis is possible with CT imaging techniques and careful clinical evaluation, thereby enabling an organ-preserving approach by preventing unnecessary appendectomies. Therefore, Valentino syndrome should be considered in the differential diagnosis of patients presenting with acute abdominal pain and atypical findings.

DECLARATIONS

Informed Consent: Written informed consent was obtained from the patient for the purpose of this case report.

Author Contributions: All authors contributed to the concept, data collection, analysis, and writing of this article.

Acknowledgments: We thank the radiology and emergency medicine departments for their contributions to patient care.

Conflict of Interest: The authors declared no conflicts of interest.

Financial Disclosure: The authors declared that this study has received no financial support.

REFERENCES

1. Wang HP, Su WC. Images in clinical medicine: veiled right kidney sign in a patient with Valentino's syndrome. N Engl J Med. 2006; 354: e9.

2. Wijegoonewardene SI, Stein J, Cooke D, Tien A. Valentino's syndrome: a perforated peptic ulcer mimicking acute appendicitis. BMJ Case Rep. 2012; 2012: bcr0320126015.

3. Mahajan P, Abdalla M, Purayil N. First report of preoperative imaging diagnosis of a surgically confirmed case of Valentino's syndrome. J Clin Imaging Sci. 2014; 4: 28.

4. Rodrigo VEU, Silva GPUP, Jayasinghe DSH, et al. Valentino's syndrome: a rare and lethal differential diagnosis for acute appendicitis. SAGE Open Med Case Rep. 2022; 10: 2050313X2211320.

5. Luna-Guerrero CE. An unusual cause of abdominal pain: Valentino's syndrome. A case report. Jpn J Gastroenterol Hepatol. 2020; 4: 1-3.

6. Amann CJ, Austin AL, Rudinsky SL. Valentino's syndrome: a life-threatening mimic of acute appendicitis. Clin Pract Cases Emerg Med. 2017; 1: 44-6.

7. Machaku D, Suleman M, Mduma E, et al. Valentino's syndrome: a bizarre clinical presentation. J Surg Case Rep. 2023; 2023: rjad035.

8. Karthik G, Naga B, Naik A. Valentino syndrome: retroperitoneal duodenal ulcer mimicking appendicitis. J Adv Clin Res Insights. 2020; 7: 55-8.

9. Mahajan PS, Abdulmajeed H, Aljafari A, et al. A cautionary tale: unveiling Valentino's syndrome. Cureus. 2022; 14: e23067.