Von Wahl Sign in Sigmoid Volvulus Patient with Cerebrovascular Disease

Serebrovasküler Hastalığı Olan Sigmoid Volvulus Hastasında Von Wahl İşareti

Ufuk Uylas¹, Ramazan Gundoğdu², Emre Turgut³

¹Baskent University Adana Dr. Turgut Noyan Training and Research Hospital, General Surgery Department, Adana, Turkey
²Baskent University Adana Dr. Turgut Noyan Training and Research Hospital, General Surgery Department, Adana, Turkey
³Inonu University, Department of Gastrointestinal Surgery, Malatya, Turkey

ABSTRACT

In addition to radiological imaging, physical examination is also of great importance in the diagnosis of sigmoid volvulus. The presence of a palpable sigmoid colon on abdominal examination is known as the von Wahl sign. A 77-year-old female patient with a history of paraplegia caused by CVD was admitted to the emergency service with abdominal pain and obstipation. Abdominal examination of the patient revealed asymmetric distension in the abdomen in inspection and von Wahl sign in palpation. The coffee bean appearance on the plain radiograph supported the sigmoid volvulus. Successful colonoscopic detorsion was applied to the patient. Six months later, sigmoid volvulus recurrence occurred in the patient who refused elective surgery. Sigmoid colon resection and Hartmann’s procedure were performed. The patient, who developed respiratory failure, died on the second postoperative day. In addition to imaging in patients with neurodegenerative disease, findings such as von Wahl sign in the physical examination are supportive in the diagnosis of sigmoid volvulus.

Keywords: Sigmoid volvulus, colon, von Wahl sign, coffee bean sign, endoscopy.

ÖZET

Sigmoid volvulus tanısında radyolojik görüntülemelerin yanı sıra fizik muayenin önemi büyüktür. Karın muayenesinde palpable sigmoid kolon varlığı von Wahl sign olarak bilinmektedir. SVH nedeniyle parapleji öyküsü olan 77 yaşındaki hasta akıl servise karın ağrısı ve gaz-gaya çıkaramama yakınması ile başvurdu. Hastanın karın muayenesinde inspeksiyonda batında asimetrik distansiyon, palpasyonda von Wahl sign bulgusu mevcuttu. Direk grafideki kahve çekirdeği görünümü sigmoid volvulusu destekledi. Hastaya başarılı kolonoskopik detorsiyon uygulandı. Elektif operasyonu kabul etmeyen hastada ateş aynca tekrar sigmoid volvulusu gelişt. Sigmoid kolon rezeksiyonu ve Hartmann’s prosedürü uygulandı. Solunum yetmezliği gelişen hasta postoperatif 2. günde exitus oldu. Nörodejeneratif hastalığı olanlarda görüntülemeler ek olarak fizik muayenedeki von Wahl sign gibi bulgular sigmoid volvulusu tanısında destekleyicidir.

Anahtar Sözcükler: Sigmoid volvulus, kolon, von Wahl sign, kahve çekirdeği işareti, endoskopı.

Received: 04.11.2021 Accepted: 06.07.2021

ÖRCID IDs: U.U.0000-0003-4195-5498, R.G.0000-0002-8799-3265, E.T.0000-0001-8196-1871

Address for Correspondence / Yazışma Adresi: Ufuk Uylas, MD. İzmir SBU Tepecik Training and Research Hospital, General Surgery Department, İzmir, Turkey E-mail: ufukuylas@hotmail.com

©Telêf Hakkı 2021 Gazfü Universitesi Tıp Fakültesi - Makale metnine http://medicaljournal.gazi.edu.tr/ web adresinden ulaşılabılır.
©Copyright 2021 by Gazi University Medical Faculty - Available on-line at web site http://medicaljournal.gazi.edu.tr/ doi:http://dx.doi.org/10.12996/gmj.2021.111
INTRODUCTION

Sigmoid volvulus is the rotation of the sigmoid colon around itself. As a result, obstruction and closed-loop obstruction develop in the left colon. Various specific clinical and radiological findings have been described in the diagnosis of sigmoid volvulus. As a result of the displacement of the rotating sigmoid colon from the left lower quadrant to the right upper quadrant, there is a gap in the left lower quadrant, and this is included in the literature as an "emptiness of the left iliac fossa" (1). In some patients with a thin abdominal wall and severe dilation of the sigmoid colon, palpability of distended sigmoid colon is known as the "von Wahl sign". While there are sigmoid volvulus-specific appearances such as coffee bean, omega, inverted U, and horseshoe on plain abdominal X-ray, swirl sign for sigmoid volvulus has been described on computed tomography (2).

In our clinical experience, asymmetric abdominal distention and von Wahl sign findings on physical examination of sigmoid volvulus patients were two important findings at the time of diagnosis. We wanted to share the importance of this examination finding through one of our patients who developed sigmoid volvulus with a diagnosis of cerebrovascular disease (CVD).

CASE REPORT

A 77-year-old female patient with a history of paraplegia due to CVD was admitted to the emergency service with abdominal pain and constipation. Abdominal examination of the patient revealed asymmetric distention in the abdomen on inspection and von Wahl sign in palpation (Figure 1). There was no stool in the rectal examination. The present findings were consistent with the sigmoid volvulus, and a standing direct abdominal radiography supported this diagnosis. (Figure 2). Successful colonoscopic detorsion was applied to the patient. Then, an elective operation was planned for the patient. However, the operation was not accepted by the relatives of the patient. The patient presented again with an attack of sigmoid volvulus six months later. Colonoscopic detorsion was tried but not successful. Thereupon, the patient was taken into operation and gangrene was found in the sigmoid colon on exploration. Sigmoid colon resection and Hartmann’s procedure were performed. The patient, who developed respiratory failure during intensive care follow-ups, died on the second postoperative day.

CONCLUSION

In the abdominal examination, if the sigmoid colon is palpable (von Wahl sign) in addition to asymmetric distention, the diagnosis of sigmoid volvulus should be kept in mind.

Conflict of interest
No conflict of interest was declared by the authors.

REFERENCES

1. Raveenthiran V. Emptiness of the left iliac fossa: a new clinical sign of sigmoid volvulus. Postgrad Med J 2000;76:638-41.
2. Raveenthiran V, Madiba TE, Atamanalp SS, De U. Volvulus of the sigmoid colon. Colorectal Dis. 2010 Jul;12(7 Online):e1-17.
3- Pattanakuhar S, Kovindha A. Colonic obstruction in a tetraplegic patient: a common symptom from an uncommon cause. Spinal Cord Ser Cases. 2020 Jun 29;6:53.

4- Burrell HC, Baker DM, Wardrop P, Evans AJ. Significant plain film findings in sigmoid volvulus. Clin Radiol 1994;49:317-9.

5- Javors BR, Baker SR, Miller JA. The northern exposure sign: a newly described finding in sigmoid volvulus. AJR Am J Roentgenol 1999;173:571-4.

6- Margolin DA, Whitlow CB. The pathogenesis and etiology of colonic volvulus. Semin Colon Rectal Surg 2007;18:79-86.

7- Sonnenberg A, Tsou VT, Müller AD. The “institutional colon”: a frequent colonic dysmotility in psychiatric and neurologic disease. Am J Gastroenterol 1994;89:62-6.

8- Uylas, U, Kayaalp C. Different clinicopathological features of nonelderly sigmoid volvulus patients. Int J Colorectal Dis 2020;35:1937-42.