# Latent post traumatic right-sided diaphragmatic hernia with totally herniated liver

Travma sonrası karaciğerin bütün olarak fıtıklaştığı sağ yerleşimli gecikmiş diafragmatik fıtık

### Tamer Direk,<sup>1</sup> Murat Özkan,<sup>1</sup> Akın Fırat Kocaay,<sup>2</sup> Serkan Enön<sup>1</sup>

Departments of <sup>1</sup>Thoracic Surgery, <sup>2</sup>General Surgery, Medical Faculty of Ankara University, Ankara, Turkey

Posttraumatic diaphragmatic hernia may occur after blunt and penetrating injuries and is usually associated with multiple traumatic injuries. The diagnosis is frequently missed due to lack of typical symptoms.<sup>[1]</sup> Therefore, radiologic evaluation including computed tomography scans may be crucial for early diagnosis especially in a suspicion of right-sided diaphragmatic rupture.<sup>[2]</sup> A 56-year-old female patient who had a blunt thoracic trauma history with right lower rib fractures four years ago was admitted with progressive dyspnea. Computed tomography displayed right hemidiaphragmatic rupture and herniating hepatic flexura, liver and omentum into right hemithorax (Figures 1a-c). Additionally, herniation of gastric fundus even with gall bladder was observed in posterolateral thoracotomy. Diaphragmatic defect



Figure 1. (a) Preoperative chest radiograph, (b) coronal computed tomography image showing herniated intraabdominal organs; liver, colon, omentum, (c) postoperative chest radiograph.



Figure 2. (a) Herniated liver, colon and omentum, (b) additional gall bladder seen at tip of forceps, (c) polytetrafluoroethylene graft after reduction of herniated viscus.



Available online at www.tgkdc.dergisi.org doi: 10.5606/tgkdc.dergisi.2016.12867 QR (Quick Response) Code Received: December 29, 2015 Accepted: January 18, 2016 Correspondence: Murat Özkan, MD. Ankara Üniversitesi Tip Fakültesi Göğüs Cerrahisi Anabilim Dalı, 06100 Sihhiye, Ankara, Turkey. Tel: +90 312 - 508 29 06 e-mail: muratoz73@hotmail.com was closed via polytetrafluoroethylene 2.0 mm thick soft tissue graft after the reduction of herniated viscus (Figures 2a-c). Patient was discharged uneventfully.

Diaphragmatic injury should be kept in mind in patients with thoracoabdominal trauma. Surgical repair is the treatment of choice in all diaphragmatic hernias and should not be postponed to reduce morbidity and mortality. A written informed consent was obtained from the patient.

#### **Declaration of conflicting interests**

The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

## Funding

The authors received no financial support for the research and/or authorship of this article.

## REFERENCES

- Kumar S, Kumar S, Bhaduri S, More S, Dikshit P. An undiagnosed left sided traumatic diaphragmatic hernia presenting as small intestinal strangulation: A case report. Int J Surg Case Rep 2013;4:446-8.
- Rees O, Mirvis SE, Shanmuganathan K. Multidetectorrow CT of right hemidiaphragmatic rupture caused by blunt trauma: a review of 12 cases. Clin Radiol 2005;60:1280-9.