

Traumatic lumbar hernia

Travmatik lomber fitik

**Mehmet Ali UZUN, Neşet KÖKSAL, Ender ONUR,
Yusuf GÜNERHAN, Ümit Yaşar ŞAHİN, Atilla ÇELİK**

Traumatic lumbar hernia is a rare consequence of blunt abdominal injury. In these cases, intraabdominal visceral injuries are common. Although physical examination is important for this diagnosis, computed tomography is valuable for confirming the diagnosis, eliminating associated intraabdominal injuries and deciding the treatment modality of traumatic lumbar hernia. If there is a suspicion of associated strangulation and/or intraabdominal injury, emergent laparotomy or laparoscopy must be performed. If there is no suspicion of these, extraperitoneal repair primarily or with prosthetic material can be performed safely. We present a case of an isolated acute lumbar hernia due to blunt abdominal trauma, and we discuss mesh repair without laparotomy as the treatment modality.

Key Words: Abdominal injuries/complications; extraperitoneal hernia; lumbar; mesh; trauma.

Künt karın travmaları sonrasında travmatik lomber fitik nadir olarak görülür. Bu olgularda karınıçi organ yaralanması sıktır. Travmatik lomber fitik olgularında fiziksel inceleme tanı için önemli olmakla birlikte, bilgisayarlı tomografi tanıyı doğrulamada, eşlik eden karınıçi organ yaralanması olup olmadığını anlamada ve tedavi yöntemini seçmede faydalıdır. Eşlik eden strangülasyon ve/veya karınıçi yaralanma şüphesi varsa acil laparotomi veya laparoskopisi yapılmalıdır, fakat böyle bir şüphe yoksa ekstraperitoneal olarak primer ya da prostetik materyal ile güvenli bir şekilde onarılabilir. Bu yazıda, künt karın travması nedeniyle oluşan izole, akut lomber fitik olgusunun laparotomisiz polipropilen protezle tamiri tartışıldı.

Anahtar Sözcükler: Ekstraperitoneal; fitik; travma; karın yaralanmaları/komplikasyonlar; lomber; protez.

Despite the increased incidence of blunt abdominal trauma, traumatic abdominal wall hernias remain rare. This rarity is because blunt forces applied to the abdomen are usually transmitted to solid or hollow organs, sparing the more elastic abdominal wall muscles.^[1,2] Although lumbar hernias due to blunt abdominal trauma are also rare, associated visceral injuries are frequent in these cases and laparotomy is often indicated.^[3,4]

The purpose of this paper is to present a case of isolated acute lumbar hernia resulting from blunt abdominal trauma and to discuss mesh repair without laparotomy as the treatment.

CASE REPORT

A 71-year-old man was referred to our emergency service with the history of a fall from a tree from a height of approximately four meters. He was hemodynamically stable and his Glasgow Coma Score was 14. Physical examination revealed dermabrasion and swelling of the left flank (Fig. 1). Intestinal sounds were heard during auscultation of this region. Conventional abdominal X-ray revealed intestinal loops at the left flank. Urine analysis and complete blood count were normal.

Ultrasonography of the abdomen showed herniation from the left lumbar region and no other patho-



Fig. 1. Dermabrasion and swelling of the left flank during physical examination.

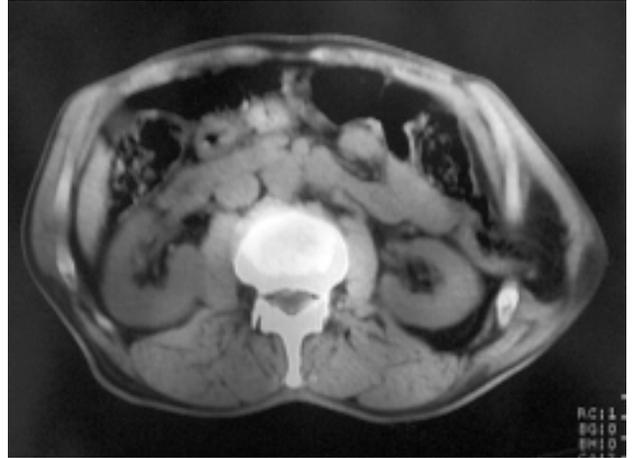


Fig. 2. Computed tomography of abdomen.

logy. Abdominal computed tomography (CT) was performed to evaluate the herniation site and to explore other retroperitoneal and intraabdominal visceral injuries. CT revealed intestinal loops herniated from the left lumbar region (Fig. 2). The patient was operated for the diagnosis of traumatic lumbar hernia. With the skin incision, we detected an 8 cm defect between the tenth rib and external oblique muscle and the herniation of intestinal loops from this defect. Peritoneum was closed with chromic catgut and a 10x10 polypropylene patch was placed over the defect with significant overlap on all sides. Patch was secured in an extraperitoneal location with full-thickness polypropylene sutures. Skin was closed following Hemovac drain insertion under skin. The drain was removed on the third postoperative day and the patient was discharged from the hospital on the fourth postoperative day.

DISCUSSION

Lumbar hernias can be classified as congenital or acquired according to the etiology. Acquired hernias may represent either delayed presentation of the congenital form or may be due to weakening of the muscle layers and various straining forces.^[5] Traumatic lumbar hernia was first reported by Selby in 1906.^[6] Although traumatic lumbar hernia is a rare entity, the most common causative factor is motor vehicle accidents. However, fall from a four-meter height was the causative factor in our case.

Given the significant force required, reports of associated intraabdominal injuries are estimated to

be 30% or higher. Incarceration and strangulation of herniated intestine accompany with the rates of 25% and 10%, respectively. If there is a doubt about the presence of posttraumatic lumbar hernia, imaging modalities are necessary for the accurate diagnosis and also for the detection of associated intraabdominal injuries.^[7] CT scan is the most valuable diagnostic imaging modality since it properly reveals the anatomy of the disrupted musculature layers, the presence of herniated intraabdominal viscera or retroperitoneal fat strangulation, and associated intraabdominal injuries.^[8]

In our case, the physical examination aroused suspicion of posttraumatic lumbar hernia. CT scan was performed to diagnose posttraumatic lumbar hernia and to rule out associated intraabdominal injury. According to CT findings, the final diagnosis was isolated posttraumatic lumbar hernia. Although the diagnosis of traumatic lumbar hernia may be very difficult, physicians must suspect the presence of posttraumatic lumbar hernia if the findings include flank pain, flank bulge and flank hematoma.

Management of traumatic lumbar hernia is controversial. The main questions in the management are “when” and “how”. If there is suspicion of strangulation and/or associated intraabdominal injury, emergent laparotomy or laparoscopy must be performed. However, if there is no suspicion of these, as in our case, extraperitoneal repair primarily or with prosthetic material can be performed as the treatment modality.

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