



Case Report

Leriche Syndrome With Lumbar Disc Hernia: First Case Report in Literature

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Abstract

Leriche syndrome and lumbar disc herniation have typical clinical findings of their own, although similar findings can form in the lower extremities. Lumbar disc herniation surgery is commonly performed today. With radiological and clinical findings; such as low back and lower limb pain which not heal with medical treatment, motor and sensorial deficit and reflex amendments are indications of surgery. In differential diagnosis of lumbar disc herniation, rare pathologies such as Leriche syndrome should be considered. This syndrome is an occlusive thrombotic lesion of proximal part of bifurcation of abdominal aorta. The characteristic symptoms include inability to maintain penile erection, fatigue of both lower limbs, intermittent bilateral claudication with ischemic pain and absent or diminished femoral pulses along with pallor or coldness of both lower extremities. This patient was operated before with diagnose of lumbar disc herniation because of overlapping of symptoms and after 40 days Leriche syndrome was diagnosed. Vascular lesions should be considered in preoperative differential diagnosis in cases with radiologically and clinically diagnosed lumbar disc herniation. Symptoms should be depend on Leriche syndrome, findings of two disease should be together.

Keywords: Leriche Syndrome, disc herniation, overlapping, clinical findings

Leriche Sendromu İle Lomber Disk Hernisi Birlikteliği: Literatürdeki İlk Olgu Sunumu

Özet

Lomber disk hernisi ve Leriche Sendromunun kendilerine has tipik klinik bulguları olmasına rağmen alt ekstremitelerde benzer bulgular oluşturabilirler. Lomber disk hernisi cerrahisi günümüzde sık uygulanan ameliyatlardandır. Radyolojik bulgularla birlikte, bel ve bacaklarda medikal tedaviye rağmen geçmeyen ağrı, motor ve duyu bozuklukları, refleks değişiklikleri gibi klinik muayene ile operasyon endikasyonu konur. Ayırıcı tanıda benzer semptomlar oluşturabilecek ek patolojiler düşünülmelidir. Bunlardan biri Leriche sendromudur. Leriche sendromu abdominal aorta bifurkasyonun hemen üzerindeki bölgenin trombotik oklüzyonundan kaynaklanan aortailiyak oklüziv bir hastalıktır. Karakteristik semptomları erektil disfonksiyon, her iki alt ekstremitede güçsüzlük, iskemik ağrı ile birlikte olan intermitant bilateral kladukasyo ve femoral nabızlarda azalma veya yok olmayla giden bacaklarda solukluk ve soğukluktur. Semptomların çakışması nedeni ile önce disk hernisi tanısı ile opere edilen vakamıza 40 gün sonra Leriche sendromu tanısı konulmuştur. Radyolojik ve klinik olarak disk hernisi tanısı konulan vakalarda ameliyat öncesi ayırıcı

tanıda vasküler lezyonlar da düşünölmelidir. Semptomlar Leriche sendromuna baęlı olabildięi gibi iki hastalığın bulgularıda birlikte de olabilir.

Anahtar Kelimeler: Leriche Sendromu, disk herniasyonu, klinik bulgular

INTRODUCTION

Microdiscectomy is the best treatment option in clinically and radiologically diagnosed lumbar disc herniation (LDH). In the presence of low back and lower limb pain not heal with medical treatment, progressive motor and sensorial deficit; microdiscectomy can be perform. If complaints improve in the postoperative period, residue disc herniation or perioperative complications should be considered. Furthermore vascular lesions with similar symptoms such as Leriche syndrome should be wondered. Leriche syndrome, also referred to as aortoiliac occlusive disease, is due to thrombotic occlusion of the abdominal aorta just above the site of its bifurcation. The typical clinical manifestations of Leriche syndrome include claudication of the lower limb and diminished femoral pulses.⁽⁵⁾

Colored Doppler Ultrasonography (US) and Computerized Tomography Angiography (CTA) are two important parameters in diagnosis. Flow reduction or absence in iliac arteries on Doppler US and obliteration on CTA should be affirmed. CTA is more effective than Doppler US because at the thrombosis part of Aorta do not caused changing in the echogenic structure of vessels.⁽⁴⁾

In this report, a case of a Leriche Syndrome with lumbar disc hernia is presented.

CASE PRESENTATION

46-years-old man was operated in another medical center because of complaints of left lower limb pain and claudication. Left L4-5 microdiscectomy was performed (Figure 1A, 1B). In the postoperative period complaints of the patient were reduced. After 40 days he admitted our emergency service with bilateral weakness of lower limbs, numbness and urine incontinence. In neurological examination paraparesis and perianal hypoesthesia were detected. Pulsation of dorsalis pedis artery bilateral was taken 2+. Vascular pathology was not considered primarily and Thorocal and Lumbar MRI was performed. L5-S1 extruded central disc herniation was shown on Lumbar MRI (Figure 2A, 2B). Surgery should not be considered because neurological examination and radiological findings were incompatible. After three hours bilateral pallor and coldness were detected in lower limbs. Peripheral pulses were not taken. The patient was taken Abdominal CT with the preliminary diagnosis of aortic dissection. Thrombotic occlusion was shown above the proximal segment of aorta which gave iliac arteries (Figure 3A, 3B). He was consulted with the Department of Cardiovascular Surgery and was performed Aorta-Femoral Bypass. In the postoperative period his complaints were reduced and he was mobilized 15 days after cardiovascular surgery.

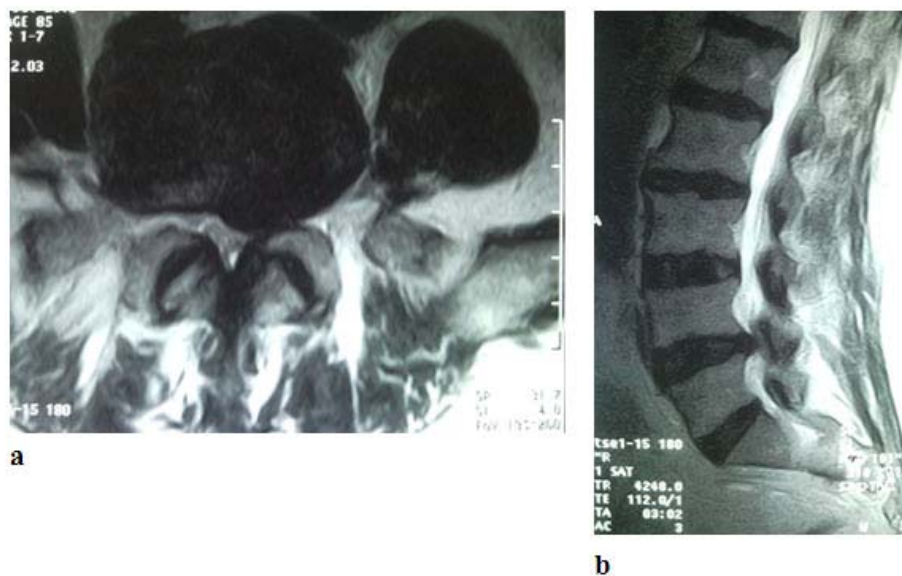


Figure 1A: Preoperative Lumbar MRI detected left L4-5 disc herniation on T2W axial section. **Figure 1B:** Preoperative Lumbar MRI detected left L4-5 disc herniation on T2W sagittal section.

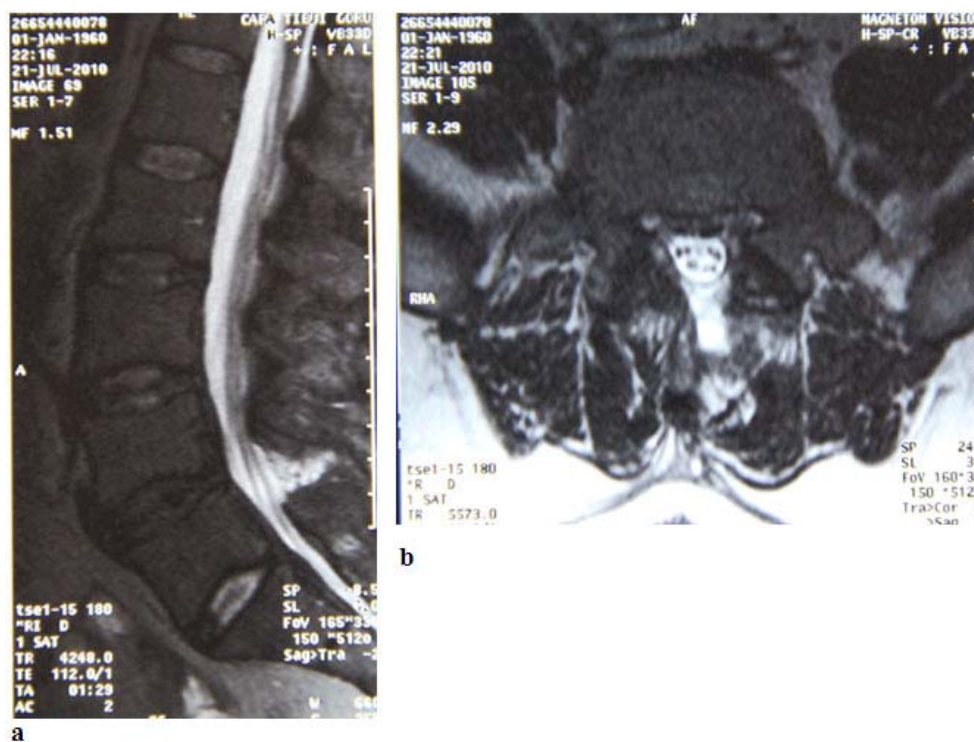


Figure 2A: Lumbar MRI detected extruded central L5-S1 disc herniation on T2W sagittal section. **Figure 2B:** Lumbar MRI detected extruded central L5-S1 disc herniation on T2W axial section.

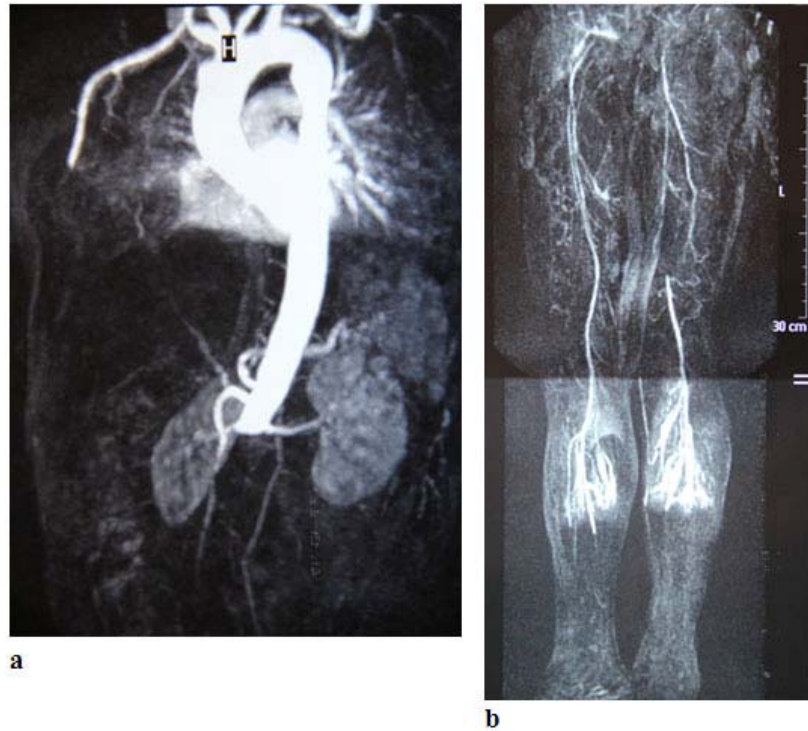


Figure 3A: Abdominal CTA detected thrombotic occlusion above the proximal segment of aorta which gave iliac arteries. **Figure 3B:** CTA detected thrombotic occlusion of aorta and minimal blood flow was seen in lower extremities.

DISCUSSION

LDH and Leriche Syndrome, should be confused because of low back and lower limb pain and weakness was determined both of them. In the literature one patient with Leriche syndrome was reported who was misdiagnosed as a LDH and was operated⁽³⁾. Presence of peripheral vascular disease, hypertension, Diabetes Mellitus, hypercholesterolemia and smoking should be inquired in the anamnesis of patients LDH. Distribution of pain, weakness and hypoesthesia are radicular in LDH. Lower limb pain and weakness should be seen in Leriche Syndrome. Pallor, coldness and peripheral pulses should be examined in patients with LDH. Impotence and urinary dysfunction should be occurred in each diseases but should be occurred in an acute form in LDH. Absence of Lasegue sign and presence of abdominal pain should not be considered LDH.

If vascular pathologies were considered in differential diagnosis of LDH, Abdominal Doppler US and CTA should be performed. CTA is more effective than Doppler US because at the thrombosis part of Aorta do not caused changing in the echogenic structure of vessels⁽⁴⁾.

Leriche Syndrome is usually occlusion of thrombus of caused by atherosclerotic plaques. Endarterectomy and Aortofemoral Bypass surgery are two different model in treatment⁽²⁾. Bifurcational, one-sided, multilevel types should be performed depending on the patients of surgery⁽¹⁾. Other nonsurgical treatment options are Streptokinase and percutaneous transluminal angioplasty⁽²⁾.

In the literature misdiagnosed one case was reported⁽³⁾. But a case of lumbar disc herniation with Leriche Syndrome has not been reported before. In our case included clinical findings of two disease. L5

radicular pain on left lower limb, power of the left ankle Grade 4 and straight leg test positive at 40 degree. Left L4-5 disc herniation was shown on Lumbar MRI and he was operated. Vascular pathology was not considered because peripheral pulses were taken, color and warmth of lower extremity was normal in preoperative period. He was admitted our hospital with low back and lower limbs nonradicular pain, paraparesis, urinary incontinence, coldness and paleness on lower limbs 15 days after surgery. Control Lumbar MRI was unremarkable. Abdominal CT was performed with preliminary diagnosis of vascular disease. Aortoiliac thrombus was shown on CT and Leriche Syndrome was diagnosed. He was consulted with the Department of Cardiovascular Surgery and was performed Aorta-Femoral Bypass. In the postoperative period his complaints were reduced and he was mobilized 15 days after cardiovascular surgery.

Disease with similar clinical findings such as LDH and Leriche Syndrome, should be overlapping. Not skip any of the diagnosis the clinician should be carefully in this regard.

Disclosure

The authors report no conflict of interest concerning the materials or methods used in this study or the findings specified in this paper.

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