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Olgu Sunumu

Lumbar Disc Herniation Causing Phantom Limb Pain in the Amputated Patient

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Phantom limb pain is a common pain in the amputated patiens but there is a decrease in frequency and intensity of phantom pain with time. Persistently increased or changed phantom pain may be caused by other pathologies rather than amputated limb. We presented a 70-year-old man who was seen for worsening phantom pain in his left leg. Our physical examination and radiological studies showed the presence of a left-central lumbar disc herniation at L2-3 intervertabral level. After microdiscectomy operation, his pain was relieved. We aimed to emphasize that lumbar disc pathologies may cause new onset pain in the patients with amputated limb and should importantly take a place in the differential diagnosis of phantom pain in amputated patients.

Key words: Amputation, phantom pain, lumbar disc herniation

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Ampute Hastada Fantom Uzuv Ağrısına Neden Olan Lomber Disk Herniasyonu

Fantom uzuv ağrısı ampute edilmiş hastalarda sık bir ağrıdır ama fantom ağrısının sıklığı ve şiddeti zamanla azalmaktadır. Sürekli artan veya değişen fantom ağrısı ampute uzuvdan fazla diğer patolojiler nedeni ile olabilmektedir. Biz sol bacağında artan fantom ağrısı olan 70 yaşında erkek hastayı sunduk. Muayenemizde ve radyolojik çalışmada L2-3 intervertebral seviyede sol santral disk herniasyonunu gösterdik. Mikrodiskektomi sonrası hastanın ağrıları iyileşti. Biz ampute edilmiş uzuvu olan hastalarda yeni başlangıçlı ağrının nedeni olarak lomber disk patolojisinin olabileceğini ve bu hastaların ağrılarının ayırıcı tanısında önemli bir yer alması gerektiğini vurgulamak istedik.

Anahtar kelimeler: Amputasyon, fantom ağrı, lomber disk herniasyonu

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Ambrose Paré, a french military surgeon, provided the first medical description of postamputation phenomena [3]. The incidence of phantom limb pain has been reported to vary from 0% to 88%. Even though phantom pain may diminish with time and eventually fade away, it has been shown that even two years after amputation, the incidence is almost the same as at onset. Consequently, almost 60% of the patients continue to have phantom limb pain after one year [4]. The etiology and pathophysiological mechanisms of phantom pain are not clearly defined. Phantom limb sensation is strongest in amputations above the elbow and weakest in amputations below the knee [8], and it is more frequent in the dominant limb of double amputees [1].

If symptoms of phantom limb pain increase in severity or they start after long periods of time

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following amputation, a differential diagnosis must be entertained. Multiple causes which may increase phantom limb pain other than the changes in the weather, autonomic stimulation, etc., include radicular pain, angina, post herpetic neuralgia, and metastatic cancer. For this reason, lumbar pathologies must be kept in mind, as is seen in our case. Our case report demonstrates that lumbar disc pathologies may be a cause of phantom limb pain and should be included in the differential diagnosis of new-onset or altered phantom limb pain.

CASE REPORT

A 70-year-old man was seen for worsening phantom pain in his left leg. He had undergone a left above—the-knee amputation 18 months previously for Buerger disease. One month later, he noted the onset of left phantom limb pain. He was able to ambulate independently with an above-the-knee prosthesis.

On examination, he had a well-formed residual limb with no tenderness or skin breakdown. One month prior to admission, his chronic phantom pain in the dorsum of the phantom foot increased in severity, and frequency. One week prior to his admission, he complained of sharp back pain, at times more severe than the phantom pain. He was admitted to hospital for evaluation. Mild muscular weakness of the distal part of his right foot was noted. Magnetic resonance imaging showed left-central lumbar disc herniation at L2-3 vertebra level (Figure 1).

Patient had operated with microdiscectomy under general anesthesia. Patient's pain was regressed at postoperative 4th hour and improved at 4th month of the follow-up period .

DISCUSSION

Sonmez E et al reported the first description of a lumbar disc herniation as a cause of stump pain [6]. Phantom pain is burning, aching, or cramping and does seem to improve eventually in many cases. On the other hand, Stump pain appears to originate from the nerves at the amputation site and has been described as pressing, throbbing, burning, or squeezing pain. Patients with amputated extremities generally have phantom pain

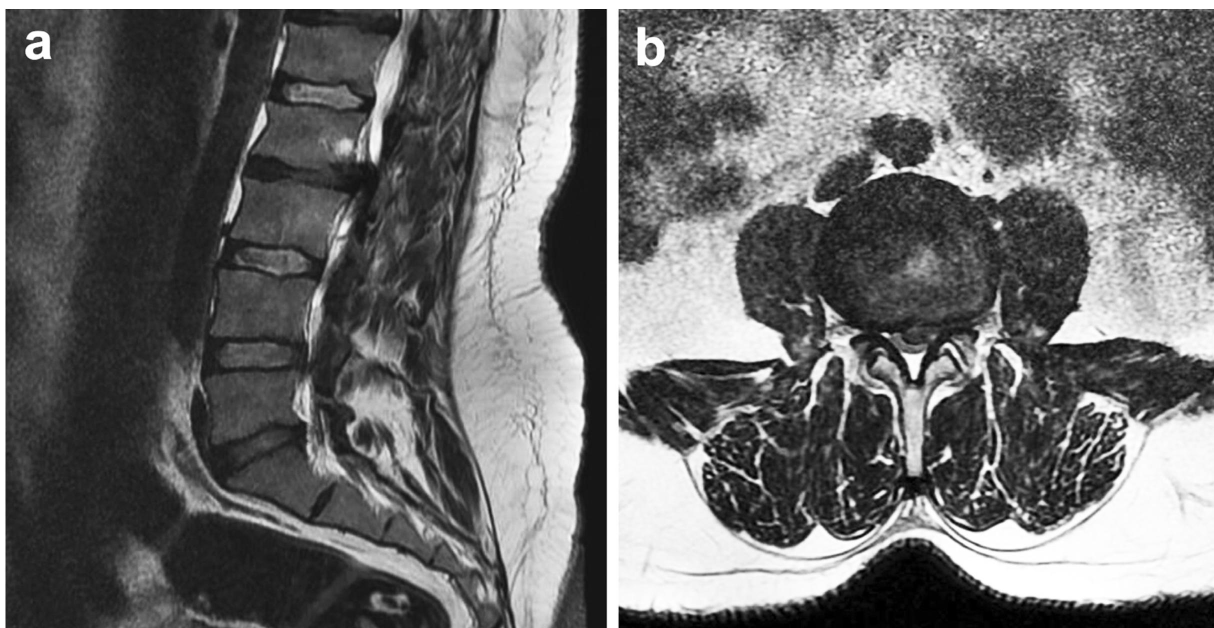

Figure 1. (a) Sagittal T2W and (b) Axial T2W Lomber MRI scans showing left-central disc herniation at L2-3 disc space of vertebra.

but this pain should be differentiated from other pathologies.

Although many factors may exacerbate phantom pain, but little has been written about causes of new residual limb or phantom limb pain in a patient with a stable or absent pain syndrome. During its usual course, phantom limb pain either remains unchanged or improves gradually. It has been shown that up to 56% of the patients report improvement or even complete resolution of pain [5]. Thus, if symptoms of phantom limb pain increase in severity or they start after long periods of time after amputation, a differential diagnosis must be entertained. Multiple causes, which may increase phantom limb pain other than the changes in the weather, autonomic stimulation, etc., include radicular pain, angina, post herpetic neuralgia, and metastatic cancer [4]. Radicular pain in the phantom limb may be associated with disc herniation [2] new onset herpes zoster or reactivation of herpes zoster by suppressed immunological mechanisms [7,9]. In addition to these, other common pathologies may cause radicular pain in the phantom pain, and this important clue should be kept in mind.

Our patient was 70-year-old man who may have other comorbid pathologies because of his advanced age. Some patients with phantom pain may have persistant pain and become agitated which may lead patients' relatives and physicians to misunderstand patients' pain. For this reason, especially physicians should be aware of new onset or gradually increasing phantom pains. We think that patients with phantom pain should be checked frequently and every symptom and sign should be investigated for the novel onset of different pathologies.

As a result, if symptoms of phantom limb pain increase in severity or they start after long periods of time following amputation, a differential diagnosis must be entertained. Patients should be fully investigated with respect to vertebral pathologies, neoplasms, infectious diseases, pelvic pathologies, rheumatologic diseases etc.

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