



Case Report

Multiple Lumbar Perineural Cysts Presented With Nonspecific Back Pain

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Summary

In this report we present a case of relatively rare multiple lumbar perineural cysts. Tarlov cysts, also known as perineural cysts are most often found in the sacral region. There are very few cases of multiple lumbar perineural cysts. A-50-year-old male patient admitted to our clinic with nonspecific back pain complaint. The neurological examination was within normal range. Magnetic resonance imaging showed multiple perineural cysts at lumbar region. The patient underwent medical treatment without any surgical intervention. The outcome of the medical treatment was satisfactory. Although it's very rare lumbar multiple perineural cysts can be seen without any neurological symptom and the treatment strategy of these cysts have some controversies.

Key words: Multiple, lumbar, perineural cyst

Nonspesifik Bel Ağrısı ile Başvuran Multipl Lomber Perinöral Kist Olgusu

Özet

Bu yazıda oldukça nadir görülen çoklu lomber perinöral kist olgusu sunulmuştur. Talov kistleri olarak da bilinen perinöral kistler genellikle sakral bölge yerleşimlidirler. Çoklu lomber perinöral kistler oldukça nadir görülürler. 50 yaşındaki erkek hasta nonspesifik bel ağrısı şikayeti ile kliniğimize başvurdu. Nörolojik muayenesi normal sınırlarda idi. Manyetik rezonans görüntüleme lomber bölgede multipl perinöral kist saptandı. Hastaya herhangi bir cerrahi müdahale olmadan tıbbi tedavi uygulandı. Hasta medikal tedaviden oldukça yarar gördü. Multipl lomber perinöral kistlerin nörolojik bulgu vermeden görülmeleri oldukça nadir olmasına rağmen tedavi stratejileri konusunda tartışmalar devam etmektedir.

Anahtar Kelimeler: Multipl, lomber, perinöral kist

INTRODUCTION

Perineural cysts were firstly described by Tarlov in 1938⁽⁷⁾ as an incidental finding of an autopsy study. They are uncommon lesions of the nerve roots and most often located in sacrum. The cyst cavity lay between arachnoid and pia mater of the involved root. These cysts are commonly asymptomatic and are incidental findings on imaging studies⁽¹⁾. But some devastating results like as cauda equina

syndrome can be seen due to this lesions⁽⁵⁾. We report a case of multiple lumbar perineural cysts presented with only nonspecific back pain without any neurological symptom. To our knowledge this is the first report presented in the literature.

CASE PRESENTATION

A-50-year-old male patient admitted to our clinic with back pain lasting for one month. The past medical history was

normal. The pain was increasing while walking and reducing with resting. The neurological examination revealed no abnormality. Lumbar magnetic resonance imaging (MRI) revealed multiple lumbar cysts with typical imaging characteristics of perineural cysts. The cysts were uniform hyperintense on T2-weighted images with a thin rim of signal void around them. On T1-weighted images, the cysts were

isointense with cerebrospinal fluid (Figure 1,2,3). Because the patient was neurologically intact any surgical intervention did not considered and the patient underwent medical therapy with non-steroid antiinflammatory and myelorelaxant drugs. After 2 weeks the patient's back pain complaint near totally resolved.

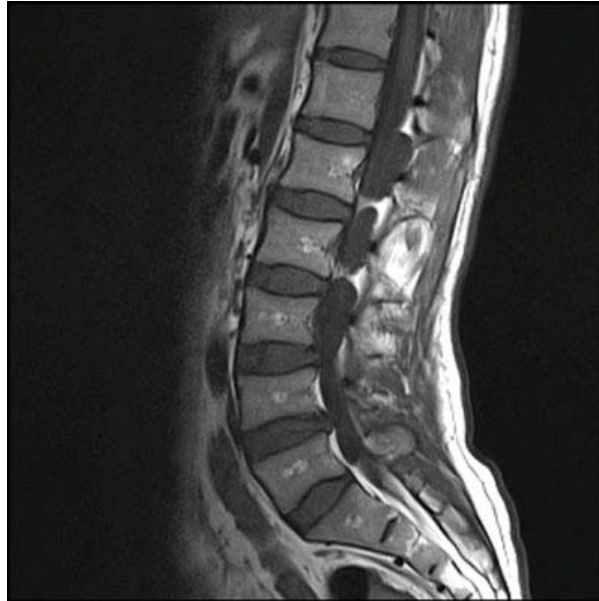


Figure 1: *Sagittal T1-weighted MRI showed multiple cystic lesions into the spinal canal.*



Figure 2: *Sagittal T2-weighted MRI showed uniform hyperintense multiple cystic lesions compatible with Tarlov cysts.*



Figure 3: Axial T2-weighted MRI showed uniform hyperintense cystic lesion which compressed the spinal cord from left side at L3 vertebral level.

DISCUSSION

The cystic lesions 'perineural cyst' in the sacral nerve root was firstly described by Tarlov⁽⁷⁾. Tarlov found that these cysts were located in the perineurial space, between the endoneurium and perineurium at the junction of the posterior nerve root and its ganglion^(6,7).

Nabors et al.⁽⁴⁾ classified these cysts into three types : extradural meningeal cysts without spinal nerve root fibers (Type I); spinal extradural meningeal cysts with spinal nerve root fibers (Type II, Tarlov cyst); and spinal intradural meningeal cysts (Type III). Developmental or congenital origin, arachnoidal proliferation, trauma and inflammation were previously indicted as etiological factors of these cysts^(2,6). In reported case there was no past history of trauma, meningitis or previous surgery. During the fetal period, the dura mater was missing when it was developed. The subarachnoid membrane was escaped⁽³⁾. Probably, this might be responsible for the formation of these cysts. Ideal surgical treatment of perineural cysts still have some controversies and difficulties. Successful surgical treatment of these cysts is mainly dependent on appropriate patient selection. The reported case was a neurologically intact patient with moderate

back pain. Because of this we prefer to follow-up the patient with medical treatment. The back pain complaint of the patient near totally resolved after two weeks lasting medical treatment.

Perineural cysts generally arise proximal to the sacral neural foramina. Our case documents an unusual and hitherto unreported pattern of multiple lumbar perineural cysts.

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REFERENCES

1. Dimitroulias AP, Stenner RC, Cavanagh PM, Madhavan P, Webb PJ. Multiple bilateral sacral perineural cysts unusually distal to the exit foramina. *British Journal of Neurosurgery*.2007; Oct;21(5):521-2.
2. Iplikcioglu C, Ozek E. Spinal Multiple Extradural Arachnoid Cysts: Became Symptomatic in An Elderly Age; A Case Report *J Neurol Sci Turk* 2012;29(2):373-378
3. Lombardi G, Morello G. Congenital cysts of the spinal membranes and roots. *Br J Radiol* 1963; 36 : 197-205.
4. Nabors MW, Pait TG, Byrd EB, Karim NO, Davis DO, Koblinski AI et al. Updated assessment and current classification of spinal meningeal cysts. *J Neurosurg* 68. 1988; 366-377.
5. Nicpoń KW, Lasek W, Chyczewska A. Cauda equina syndrome caused by Tarlov's cysts-case report. *Neurologia i neurochirurgia polska*. 2002 Jan-Feb;36(1):181-9.
6. Park HJ, Kim IS, Lee SW, Son BC. Two cases of symptomatic perineural cysts (tarlov cysts) in one family: a case report. *Journal of Korean Neurosurgical Society*. 2008; Sep;44(3):174-7. Epub 2008; Sep 30.
7. Tarlov IM. Perineural cysts of the spinal nerve roots. *Arch Neurol Psychiat* 1938;40:1067-74.