

Accepted Manuscript

A rare cause of back pain: Simple Bone Cyst in the Lumbar Vertebra

Alaaddin Nayman, MD, Ibrahim Guler, Asist. Prof. Dr., Hasan Erdogan, M.D., Mustafa Koplay, Assoc. Prof. Dr



PII: S1529-9430(15)00467-2

DOI: [10.1016/j.spinee.2015.05.002](https://doi.org/10.1016/j.spinee.2015.05.002)

Reference: SPINEE 56324

To appear in: *The Spine Journal*

Received Date: 25 April 2015

Revised Date: 30 April 2015

Accepted Date: 7 May 2015

Please cite this article as: Nayman A, Guler I, Erdogan H, Koplay M, A rare cause of back pain: Simple Bone Cyst in the Lumbar Vertebra, *The Spine Journal* (2015), doi: 10.1016/j.spinee.2015.05.002.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

A rare cause of back pain: Simple Bone Cyst in the Lumbar Vertebra

Alaaddin Nayman, Ibrahim Guler, Hasan Erdogan, Mustafa Koplay

Selcuk University Faculty of Medicine, Department of Radiology, Konya, Turkey

Corresponding Author: Alaaddin Nayman, MD

Selcuk University, Faculty of Medicine

Department of Radiology, 42080

Konya-Turkey

e-mail: naymanalaaddin@hotmail.com

Tel :+ 90 332 241 15 50

Fax: :+ 90 332 241 60 65

1

2 **A rare cause of back pain: Simple Bone Cyst in the Lumbar Vertebra**

3

4 A 34-year-old man presented with low back pain. T1-weighted magnetic resonance
5 imaging (MRI) showed a low-intensity lesion in the posterior aspect of the L3 vertebra
6 corpus. T2 weighted MRI showed a very high intensity in the same area. After contrast
7 administrastion, rim like enhancement was seen around the lesion (Fig). These findings are
8 consistent with a simple bone cyst. Simple bone cysts (SBCs) are very rare in the vertebra
9 [1,2]. Although the cause is unknown, several mechanisms have been proposed, such as
10 venous obstruction of interstitial fluid drainage, local trauma, and lymphatic degeneration
11 caused by other tumors [1-3].

12

13 **References**

- 14 1. Ogata T, Matsuda Y, Hino M, Kawatani Y, Sogabe H, Yamamoto H. A simple
15 bone cyst located in the pedicle of the lumbar vertebra. Journal of spinal disorders
16 & techniques, 2004. 17(4): 339-342.
- 17 2. Varun GBS, Veerappan V, Leela PA. Solitary Bone Cyst of the dorsal spine: An
18 unusual presentation. International Journal of Health Information and Medical
19 Research, 2014. 1(4): 35-37.
- 20 3. Coskun B, Akpek S, Dogulu F, Uluoglu O, Eken G. Simple bone cyst in spinous
21 process of the c4 vertebra. American journal of neuroradiology, 2004. 25(7): 1291-
22 1293.

23

24 **Figure legend**

25 **Fig.** Sagittal T1 weighted (a) MRI image shows hypointense, (b) fat saturated T2
26 weighted MRI image shows hyperintense lesion in the L3 vertebra corpus. Contrast
27 enhanced T1 weighted sagittal MRI image (c) shows rim like enhancement around the
28 lesion.

