

## Ganglion and Synovial Cyst on the Posterior Longitudinal Ligament -Case Report-

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### - Abstract -

Ganglion cyst and synovial cyst are rarely found in the lumbar spinal canal. Synovial cysts usually arise from degenerative apophyseal joints, and ganglion cysts arise from articular facet joints. We present here two cases: one ganglion cyst that arose from the posterior longitudinal ligament at the L2-3 intervertebral space level, and a synovial cyst that also arose from the posterior longitudinal ligament at the level of the L4 body. Both patients progressively developed low back pain with radiating pain. The lesions were detected by magnetic resonance imaging in both cases. The dural sac was displaced by the cysts in both cases. Relief of symptoms was achieved by decompressive laminectomy and excision of the ganglion cyst, and excision of the synovial cyst and PLIF at L3-4. Because these lesions have not been reported on before, we report here on 2 cases with synovial and ganglion cyst from the posterior longitudinal ligament at lumbar spinal level.

**Key Words:** Lumbar Spine, Ganglion cyst, Synovial cyst

(mucoïd) (synovial cyst)  
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(ganglion)  
4-5  
1 1  
Kao<sup>2)</sup>  
(serous)

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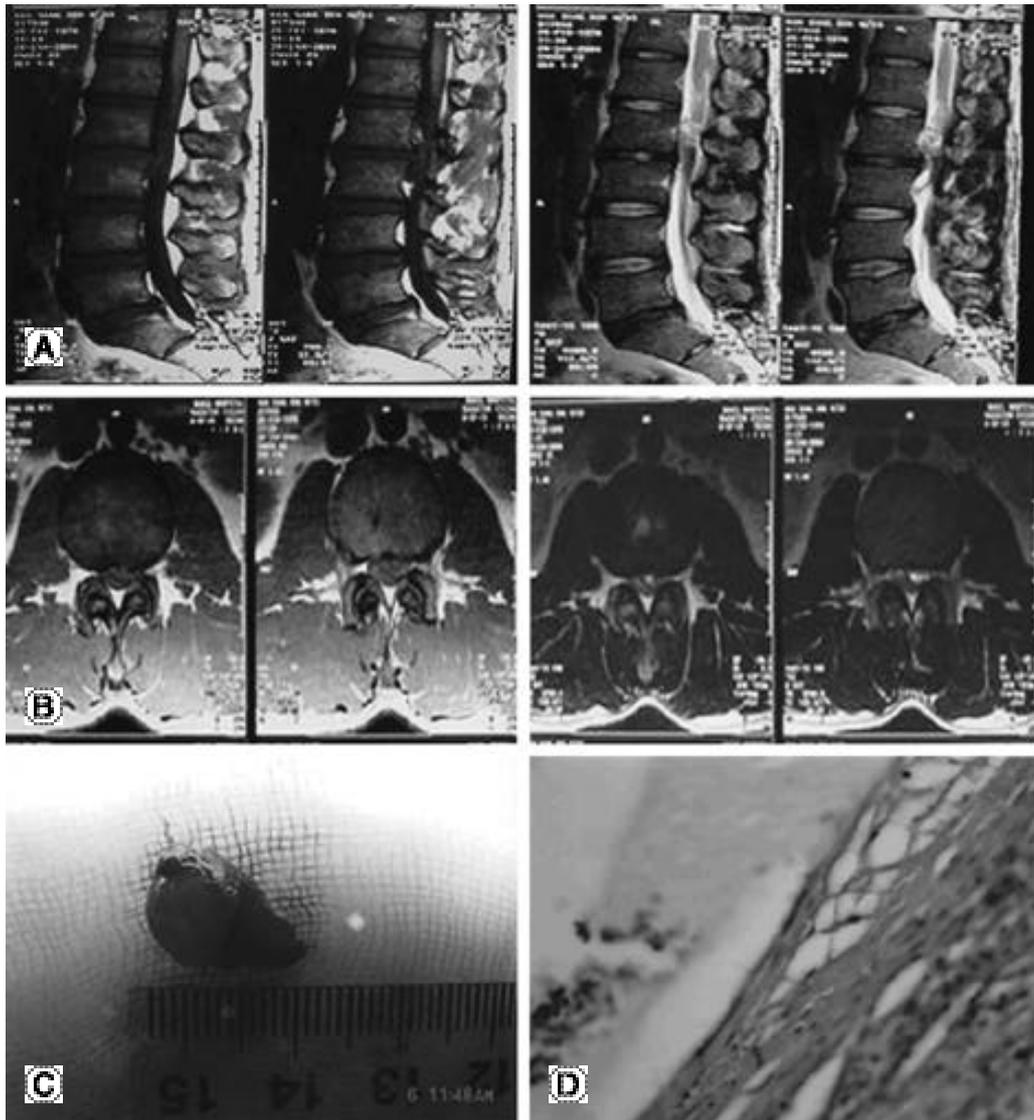
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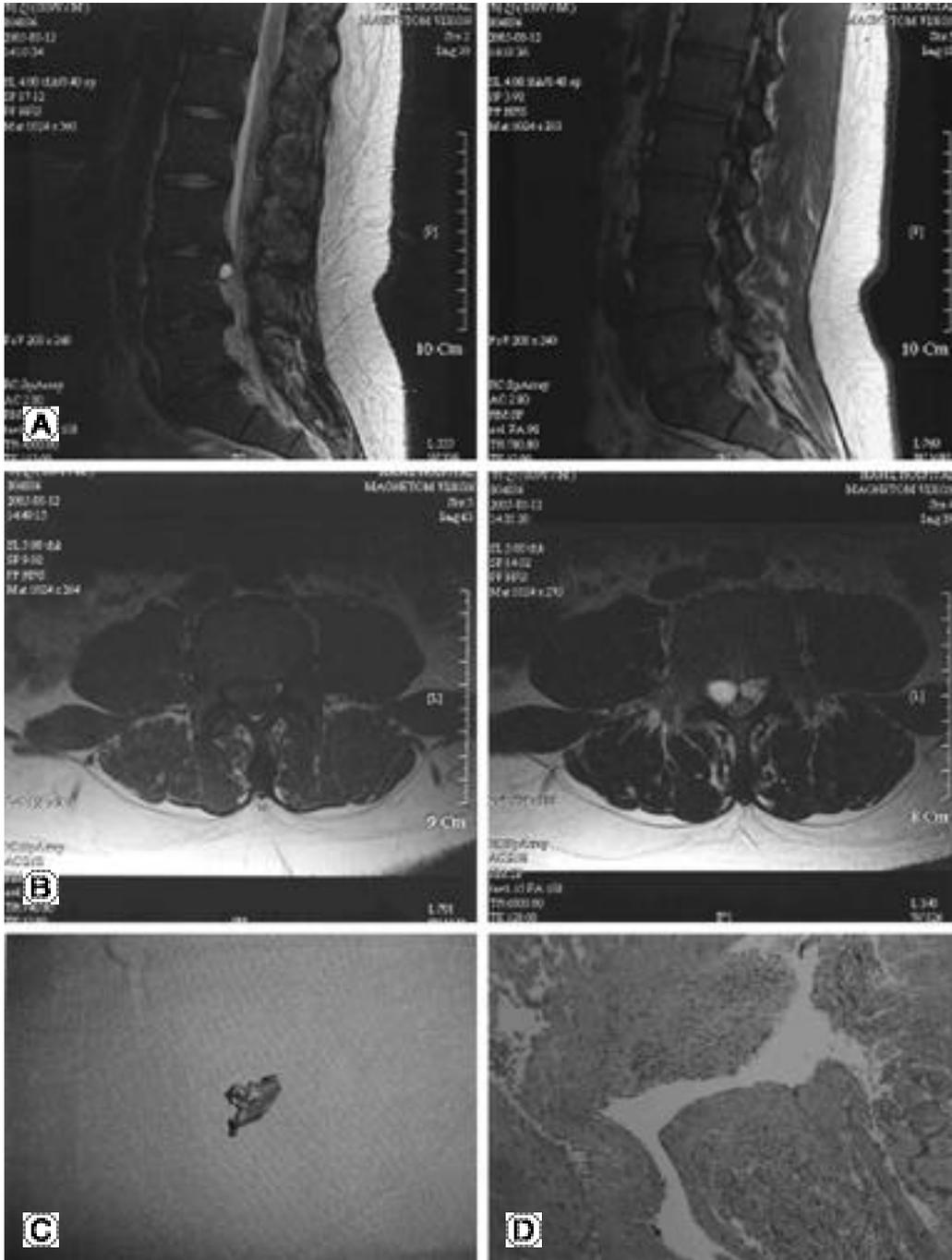
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2-3  
1.2 × 0.8 × 0.7 cm  
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(Fig. 1A-D).  
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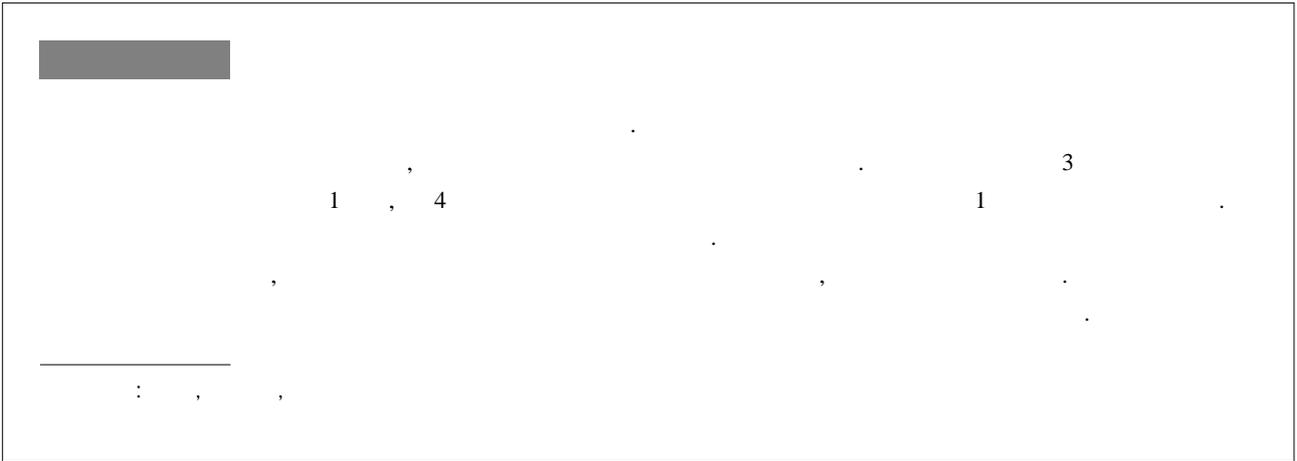
**Fig. 1.** MR images show ganglion cyst located on the L2 level of posterior longitudinal ligament. (A) sagittal T1 & T2-weighted image: 1.2 × 0.8 × 0.7 cm sized mass with low signal in T1, high signal in T2 images (B) axial T1 & T2-weighted image: 1.2 × 0.8 × 0.7 cm sized mass with low signal in T1, high signal in T2 images (C) excised ganglion cyst (D) photomicrograph of section of ganglion cyst, which shows capsule but no surrounding fibrous tissue.



**Fig. 2.** MR images show synovial cyst located on the L4 level of posterior longitudinal ligament. (A) sagittal T1 & T2-weighted image:  $1.4 \times 1.2 \times 0.9$  cm and  $0.8 \times 0.7 \times 0.6$  cm sized masses with low signal in T1, high signal in T2 images (B) axial T1 & T2-weighted image:  $1.4 \times 1.2 \times 0.9$  cm and  $0.8 \times 0.7 \times 0.6$  cm sized masses with low signal in T1, high signal in T2 images (C) excised synovial cyst after aspiration during operation (D) photomicrograph of section of synovial cyst, which shows mesothelial cells surrounding the cystic materials.

가 cases) <sup>1,7,8)</sup> ,  
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 , (arachnoid cysts), (cystic neurofibro-  
 mas), (perineural cyst),  
 . <sup>9-11)</sup>  
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 ( hernia-  
 tion), (2) (mucoïd degeneration),  
 (3) (developmental rest), (4)  
 (pluripotential mesenchymal cell)  
 (metaplasia) <sup>3-5)</sup> .  
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가 . 34  
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3-4
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