Tarlov Cysts Occurring in the Upper and Lower Spinal Perineural Nerve Roots - a case report

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Background:

Tarlov cyst is a spinal nerve root disease. Most occurred in the lumbar/sacral region, and rarely in the cervical/thoracic region¹. We have experienced a case of tarlov cysts occurring both in the lumbar/sacral and cervical/thoracic regions. The purpose of this report is to raise the awareness of this rare disease.

Case report:

A 47 years old female patient complained about multiple pains of the whole body for ten years. She suffered from low back pain due to multiple lumbar/sacral tarlov cysts which was diagnosed previously (Fig 1). However, her upper back and neck pain was diagnosed and treated as myofascial pain. The patient has visited many specialists but the pain was not completely controlled. Image study with cervical/thoracic spine MRI (Fig 2) was performed because her pain status was getting worse. Multiple upper cervical/thoracic tarlov cysts were discovered. Pain prescription was adjusted by increasing the dosage of anticonvulsant. The patient reported that her pain had reduced a little, but was still unsatisfied with the result.

Fig 1. MRI of lumbar spine. Multiple tarlov cysts was seen at sagittal view. The cysts up to 25mm measuring at sacral horizontal view

Fig 2. MRI of cervical spine. Tarlov cysts was seen in C7 and level.

Discussion:

Tarlov cyst (spinal perineural cyst) is a rare disease with an incidence rate of 5% of the general population, and only 20% of these patients show symptoms. The symptoms may vary, such as chronic back/buttocks pain, paresthesia, spasticity, and/or radiculopathy. Although tarlov cyst may occur in every region of the spinal nerve roots, previous case reports in cervical/thoracic regions are rare. The disease is usually confirmed by images of MRI or CT. There is no consensus treatment of this disease². Surgical intervention is not suggested if multiple nerve roots are involved. Upper back pain with positive trigger points may hinder physicians to discover that the disease may affect the cervical/thoracic regions. On the other hand, we had detected low level of vitamin D in this case. Although we didn't know if vitamin D plays a role or not in this disease, we had suggested the patient to take high dose of vitamin D besides analgesics.

Learning points:

Tarlov cysts may occur in the upper and lower spinal perineural nerve roots or even occur in both regions

References:

- (1) Voyadzis JM et al., Tarlov Cysts: A Study of 10 Cases with Review of the Literature. J Neurosurg. Jul 95 (1 Suppl) : 25-32, 2001.
- (2) Langdown AJ et al., The Clinical Relevance of Tarlov Cysts. J Spinal Disord Tech, Feb 18 (1): 29-33, 2005.