

Cervical degenerative disc disease case series

2022

Ninety-five patients with radiologically evident [cervical degenerative disc disease](#) were recruited from 2015 to 2019. Radiography images were used to analyze the straight-line index in each patient in the upright posture. The straight-line index was calculated by drawing a reference line connecting the posterior inferior edges of C2 to C7 and normalizing the addition of the distances from the posterior inferior edges of C3, C4, C5, and C6 to the reference line, respectively. Straight-line index <0 was defined as cervical kyphosis and ≥ 0 as cervical lordosis, the cervical kyphosis. In cervical kyphosis group, the distance from the posterior inferior edges of C3, C4, C5, and C6 to the reference line was normalized by the reference line distance to determine posterior displacement. Multiple comparison tests aside from simple and multiple linear regression analysis were performed.

Results: The incidence of [cervical kyphosis](#) in patients with radiologically evident degenerative disc disease was 60% (57/95 patients). Multiple comparison tests revealed that the cervical posterior translation indexes of C4 and C5 were significantly higher than those of C3, C4, and C6, in cervical kyphosis group.

[Cervical kyphosis](#) was present in 60% of patients with radiologically evident [cervical degenerative disc disease](#), with C5 showing the most posterior displacement ¹⁾.

2018

Of 145 patients with cervical spondylosis and dizziness, 116 underwent anterior cervical decompression and fusion and 29 underwent conservative treatment. All were followed up for one year. The primary outcomes were measures of the intensity and frequency of dizziness. Secondary outcomes were changes in the modified Japanese Orthopaedic Association (mJOA) score and a visual analogue scale score for neck pain.

There were significantly lower scores for the intensity and frequency of dizziness in the surgical group compared with the conservative group at different time points during the one-year follow-up period ($p = 0.001$). There was a significant improvement in mJOA scores in the surgical group.

This study indicates that anterior cervical surgery can relieve dizziness in patients with cervical spondylosis and that dizziness is an accompanying manifestation of cervical spondylosis ²⁾.

1998

Muhle et al. determined the dynamic changes of the spinal canal during flexion and extension in patients with cervical spondylosis.

Forty-six patients were studied inside a whole-body magnetic resonance (MR) scanner with between 50 degrees of flexion and 30 degrees of extension, using a positioning device. At neutral position (0

degree) and maximum flexion and extension sagittal T2-weighted turbo spin echo sequences were acquired.

A significant ($P < \text{or} = 0.05$) increase of spinal stenosis was found at extension (48%, 22 of 46 patients) when compared with flexion (24%, 11 of 46). Cervical cord compression was diagnosed at flexion in 5 patients (11%) and at extension in 9 patients (20%). Concerning the number of patients with cervical cord compression at flexion and extension, significant differences ($P < \text{or} = 0.05$) were found in patients with degenerative changes at four segments compared with patients with one segment involvement.

Magnetic resonance imaging identified a significant percentage of increased spinal stenosis at flexion and, especially, at extension, which was not observed at neutral position (0 degree). Flexion and extension MR imaging demonstrates additional information using a noninvasive technique concerning the dynamic factors in the pathogenesis of cervical spondylotic myelopathy ³⁾.

1)

Takahashi M, Iwamoto K, Tomita K, Igawa T, Miyauchi Y. Incidence of cervical kyphosis and cervical posterior translation in neck pain associated with radiological evidence of degenerative disc disease. *Musculoskelet Sci Pract.* 2022 Aug 2;62:102637. doi: 10.1016/j.msksp.2022.102637. Epub ahead of print. PMID: 36049284.

2)

Peng B, Yang L, Yang C, Pang X, Chen X, Wu Y. The effectiveness of anterior cervical decompression and fusion for the relief of dizziness in patients with cervical spondylosis: a multicentre prospective cohort study. *Bone Joint J.* 2018 Jan;100-B(1):81-87. doi: 10.1302/0301-620X.100B1.BJJ-2017-0650.R2. PubMed PMID: 29305455.

3)

Muhle C, Weinert D, Falliner A, Wiskirchen J, Metzner J, Baumer M, Brinkmann G, Heller M. Dynamic changes of the spinal canal in patients with cervical spondylosis at flexion and extension using magnetic resonance imaging. *Invest Radiol.* 1998 Aug;33(8):444-9. PubMed PMID: 9704283.

From:
<https://neurosurgerywiki.com/wiki/> - Neurosurgery Wiki

Permanent link:
https://neurosurgerywiki.com/wiki/doku.php?id=cervical_degenerative_disc_disease_case_series

Last update: 2024/06/07 02:58

