

Cervical spondylosis complications

Adjacent segment disease

Brown Séquard syndrome

Degenerative cervical myelopathy.

Cervical radiculopathy.

Paraplegia.

Tetraplegia.

Recurrent chest infection...

Cervical spondylosis (CS) may lead to distal brain damage affecting the [white matter](#) and [gray matter](#) of the [sensorimotor cortex](#) causing [brain atrophy](#) and functional adaptive changes ¹⁾.

It is reported to be associated with [vertebrobasilar insufficiency](#). However, few cohort studies have investigated the association between CS and [posterior circulation ischemic stroke](#).

The study [cohort](#) comprised 27,990 [patients](#) aged ≥ 18 years with a first diagnosis of CS. The controls consisted of patients with [propensity](#) score matched for age, sex, and comorbidities at a ratio of 1:1.

Lin et al. investigated the relationships of CS with [ischemic stroke](#) and all-cause [mortality](#). [Cox regression](#) was used to estimate [hazard ratios](#) (HRs) and 95% confidence intervals (CIs). The average follow-up duration was 6.13 (SD = 3.18) and 6.07 (SD = 3.19) years in the CS and non-CS cohorts, respectively.

The mean age of CS patients and non-CS patients was 54.9 ± 13.4 and 55.1 ± 14.9 years. Fifty-eight point five percent of CS patients and 59.2% of non-CS patients were women. CS patients were 1.46 folds more likely to develop a posterior circulation ischemic stroke (95% CI, 1.23-1.72) than non-CS patients. CS patients with myelopathy exhibited a 1.50-fold risk (95% CI, 1.21-1.86) of posterior circulation ischemic stroke compared with non-CS patients; CS patients without myelopathy were at a 1.43-fold risk (95% CI, 1.18-1.73) of posterior ischemic stroke compared with non-CS patients. The risk of posterior ischemic stroke was non-significant between non-CS patients and CS patients who had received spinal anterior decompression (adjusted HR, 1.66; 95% CI, 0.78-3.52), while receiving posterior decompression was associated with a 4.23-fold risk of posterior ischemic stroke (95% CI, 1.05-17.0).

This population-based study showed that CS is associated with an increased risk of posterior circulation ischemic stroke. Surgical posterior decompression was associated with the highest risk of posterior ischemic stroke ²⁾.

References

1)

Bernabéu-Sanz Á, Mollá-Torró JV, López-Celada S, Moreno López P, Fernández-Jover E. MRI evidence of brain atrophy, white matter damage, and functional adaptive changes in patients with cervical spondylosis and prolonged spinal cord compression. Eur Radiol. 2019 Jul 26. doi: 10.1007/s00330-019-06352-z. [Epub ahead of print] PubMed PMID: 31350584.

2)

Lin SY, Lin CL, Chen DC, Lee HC, Chen HT, Lin TC, Hsu CY, Kao CH. Risk of posterior circulation stroke in patients with cervical spondylosis: A nationwide, population-based study. Atherosclerosis. 2018 Aug 17;277:42-46. doi: 10.1016/j.atherosclerosis.2018.08.006. [Epub ahead of print] PubMed PMID: 30172083.

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