



Comparison of anterior controllable antedisplacement and fusion (ACAF) with posterior laminoplasty in the treatment of multilevel cervical ossification of the posterior longitudinal ligament: A prospective, randomized and control study with at least one-year follow up.

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Abstract:

The optimal approach for the treatment of ossification of the posterior longitudinal ligament (OPLL) in the cervical spine still remains controversial. Both anterior and posterior approaches have their advantages and disadvantages. We have developed a novel technique for this disease, called anterior controllable antedisplacement and fusion (ACAF). The study is to compare ACAF with laminoplasty in the treatment of multilevel OPLL, and evaluate the efficacy and safety of this procedure. Between September 2016 and April 2018, a total of 80 patients with multilevel OPLL were randomized in a 1:1 ratio to ACAF group and laminoplasty group. All patients were followed up at least one year. The results showed ACAF took a longer operation time. C5 palsy and axial pain occurred more commonly in laminoplasty group, whereas dysphagia and hoarseness appeared easily in ACAF group. At one-year follow-up, the final JOA score and RR were significant higher in ACAF group than those in laminoplasty group, when OR was not less than 60%, or K-line was negative. ACAF was also good at preservation of cervical lordosis and sagittal balance, but ROM of cervical spine in both groups decreased significantly. Therefore, ACAF is a safe and effective alternative for multilevel OPLL. Compared with laminoplasty, ACAF is more effective in the cases when OR is not less than 60%, or K-line is negative.

Biography:

Yu Chen has completed his PhD at the age of 29 years from Second Military Medical University and work as a spine surgeon in Changzheng Hospital. He is a professor of spine surgery, and perform more 500 spine operations



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Publication of speakers:

1. Matsunaga S, Sakou T. Ossification of the posterior longitudinal ligament of the cervical spine: etiology and natural history. *Spine (Phila Pa 1976)* 2012;37:E309-14.
2. Moon BJ, Choi SK, Shin DA, et al. Prevalence, incidence, comorbidity, and mortality rates of ossification of posterior longitudinal ligament in the cervical spine: a nested case-control cohort study. *World Neurosurg* 2018;117:e323-e328.
3. Sohn S, Chung CK, Yun TJ, et al. Epidemiological survey of ossification of the posterior longitudinal ligament in an adult Korean population: three-dimensional computed tomographic observation of 3,240 cases. *Calcif Tissue Int* 2014;94: 613-20.
4. Shin J, Kim YW, Lee SG, et al. Cohort study of cervical ossification of posterior longitudinal ligament in a Korean populations: Demographics of prevalence, surgical treatment, and disability. *ClinNeurolNeurosurg* 2018;166:4-9.
5. Tsuji T, Chiba K, Hosogane N, et al. Epidemiological survey of ossification of the posterior longitudinal ligament by using clinical investigation registration forms. *J OrthopSci* 2016;21:291-4.

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