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### Surgical Strategies in Management of Cervical OPLL

Ossification of the posterior longitudinal ligament (OPLL) is often associated with cervical spondylosis (CS) and discogenic disease (DD) and one of the main causes of cervical myelopathy in Asian countries.

Surgical strategies in management of OPLL in the cervical spine remain controversial, and are widely different even among spinal neurosurgeons.

From 1997 to 2015, among 788 cases of cervical degenerative disorders, 233 cases of OPLL were treated by anterior approach in 161 (69.1%), by posterior approach in 68 (29.2%) and by combined approach in 4 (1.7%), while 555 cases of CS and DD were treated by anterior approach in 464 (83.6%), by posterior in 85 (15.3%) and by combined in 6 (1.1%).

Among 625 cases which were treated by keyhole anterior approach with interbody cage fixation, 464 (74.2%) were with CS and DD and 161 (25.8%) with OPLL.

One-level fixation was more common in CS and DD (57.1%) and two-level fixation was more common in OPLL (64.8%). Surgical results were satisfactory with a few complications in 88% and fusion rate at one-year follow-ups was 90%.

In 153 cases of multilevel (more than 3-4 levels) CS and OPLL, posterior expansive laminoplasty mainly unilateral open-door laminoplasty was carried out with reasonable results and a few complications. In cases of apparent instability, lateral mass fixation was added to laminoplasty.

In conclusion, keyhole anterior approach with cage fixation is a safe and effective method for one-level and two-level lesion of cervical spondylosis and discs as well as OPLL. For multilevel canal stenosis with cord compression, posterior expansive laminoplasty is the first-choice and effective procedure. The possibility of combined approach is relatively small.

### Biography

Hiroshi Nakagawa, completed his Ph.D from Hokkaido University School of Medicine at 1965 and continued his Internship with U.S. Army Hospital, Zama, Kanagawa, Japan 1965 – 1966 and currently he is associated with Kushiro Kojinkai Memorial Hospital Spine Center, Kushiro. He got Certified by American Board of Neurological Surgery in 1981 and Japanese Board of Neurological Surgery 1983 apart from that he served much honorable position in Japan and currently he is working as an Clinical professor at Tokushima University.

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