Minimally invasive anterior approach to cervical OPLL using interbody cage fixation
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Introduction: Ossification of the posterior longitudinal ligament (OPLL) of the cervical spine is often associated with cervical spondylosis and mainly causing myelopathy, but its surgical management still remains controversial.

Objective: Usefulness of minimally invasive anterior approach for cervical OPLL using interbody cage fixation is reported.

Materials and methods: From 1997 to 2010, among 615 cases of cervical degenerative disorders, 504 cases (82.0%) were treated by anterior mini-open microsurgery with interbody cage fixation. Among 202 cases of OPLL, 148 (73.2%) cases of local and segmental OPLL were treated by anterior approach, 50 cases of extensive non-segmental OPLL by posterior expansive laminoplasty, and 4 cases by combined approach. In local and segmental OPLL, transdiscal and/or keyhole corpectomy with microsurgical decompression were performed mostly at two levels (66.7%), followed by single- or twin-cage fixation without anterior plate implant.

Results: Surgical results were satisfactory in 88% without significant difference between cases of cervical spondylosis and OPLL. Complications such as CSF leakage and subsidence were noted in several cases but well managed.

Conclusion: Mini-open microsurgical anterior approach with cage fixation is a safe, effective and minimally invasive procedure with a few complications in cervical spondylosis and OPLL, facilitating a short hospital stay and early return to work.