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# Thoracic ossified ligamentum flavum: Literature review and a single-surgeon experience of seven cases from the Indian subcontinent

**Lakshmi Prasad Govindaraju**
Manipal Academy of Higher Education, India

Ossification of ligamentum flavum (OLF) is a rare cause of thoracic extradural compressive myelopathy mostly found among Japanese and East Asian countries, and uncommon in rest of the populations. A single-surgeon experience of seven cases of thoracic OLF is being reported from an Indian hospital. Also, new MRI findings to predict dural ossification (DO) pre-operatively have been described. We conducted a two and half year retrospective analysis. The parameters included demographic, clinico-radiological and operative details, and the outcome. Seven patients (four males, three females), with mean age of 53 years (range: 45–65 years) were analyzed. The mean symptom duration was four months. The pre-op Nurick grade was: 3 grade III, 2 grade IV and 2 grade V. Mid-lower dorsal spines were mostly involved and except one, all had myelomalacic changes. Mean number of involved levels was 4.5 (range: 3–6). Four patients (57%) had DO and intra-operative dural tears and high correlation of new MRI finding with intraoperative DO was found in three out of four cases. None of the patients had wound-related problems. All, except one, had significant improvement. Spasticity and gait ataxia were the first to improve. Post-op Nurick grading was: 3 grade II, 3 grades III and 1 grade IV. The mean follow-up duration was 8.4 months (range 2–15 months). It could be concluded that, decompressive laminectomy (till the normal interlaminar space caudally and cranially) with complete removal of flavum remains the treatment of choice. Careful drilling under microscopic magnification is paramount in reducing cord damage. Dural ossification, CSF leak and myelomalacia are neither related to wound problems or clinical improvement. Higher preoperative Nurick score is beneficial while very rapid onset of motor deficits might have delayed recovery.