

## Introduction

In this study, we retrospectively analyzed the CT images and intraoperative findings of 12 patients who underwent posterior decompression surgery of thoracic ossification of the ligamentum flavum(OLF) in our hospital. The purpose of this study is to determine the characteristic imaging findings of dural ossification and to evaluate surgical method for dural ossification in thoracic OLF.

## Methods

There were 8 men and 4 women, aged from 41 to 77 years (mean 65.8 years). Morphologically, the ossified ligaments in this series were classified into 3 lateral, 1 extended, 4 enlarged, 2 fused and 2 tuberous types. The mean thickness of OLF measured from bone-window CT was 6.0 mm (1.7 to 12.0 mm).

# Learning Objectives

The estimation of dural ossification in thoracic OLF will be linear ossification along the dural sac, double layer ossification and thick ossification from bone window CT.

## Results

Four patients (33%) were found to have dural ossification and needed dural plasty using the femoral fascia. 2 patients had tuberous and 2 patients had enlarged. Bone window CT show evidence of dural involvement in all 4 patients. There are 2 radiologic signs; linear high density along with dura and double layer ossification. They had larger values of the OLF thickness (6.2 to 12.0 mm: mean 10.1mm). They had no complication after surgery.

## Conclusions

From this study, CT findings suggesting the associated dural ossification in thoracic OLF will be linear ossification along the dural sac, double layer ossification, and thick ossification. The surgical technique of resection of OYL with floating of dural ossification provides satisfactory decompression and avoid dural defect or neural injury.