The pathological and radiological features of OPLL and DISH:

- Ossified posterior longitudinal ligament is a dysplastic process leading to ossification associated with growth of hyperplasic mass within PLL. Pathologically there is progressive ossification and enlargement of PLL behind vertebral bodies that spans a disc space, leading to canal stenosis and myelopathy. **The cervical spine in 90%** of cases most commonly C5 level followed by C4 and C6. Thoracic spine is less commonly involved and lumbar spine the least. The prevalence in Japanese population is 2%, USA- 0.2%. **The etiology is not known probably multifactorial** (hereditary-30% incidence among first degree relatives, hormonal and metabolic-insulin, GH, bone morphogenic protein 2 , TGF beta). The natural history is one of progressive enlargement of the lesion in AP, transverse and longitudinal diameters.

- There are 4 types of OPLL:

1. Segmental: ossification is adjacent to one vertebral body and disc is spared

2. Localized lesion that spans disc space:

3. Continuous lesion that spans more than 2 discs and vertebral bodies

4. Mixed : combination of the above

- Clinically patients can be asymptomatic or present with myelopathy

- Investigations: **Plain films** demonstrate calcification behind the vertebral body in 30%, **CT scan** shows the extent of the calcification more accurately, **MRI**-is the diagnostic method of choice for patients with myelopathy. The calcified mass looks hypointense on T1 and T2

- **Treatment:** surgical anterior decompression (disectomy and corpectomy) and fusion is the treatment of choice in the majority of symptomatic patients. Japanese advocate doing laminoplasty. Laminectomy may be appropriate for lumbar lesions patients. The most common pitfall is right to left slanting with leaving compressive mass on right side (fluoroscopy with metal on the anterior body to guide the extent of bony resection). The treatment of asymptomatic patients is controversial. Probably patients with severe canal stenosis (space available for cord<9 mm are at increased risk of myelopathy following trauma and may be candidates for prophylactic decompression) **Diffuse idiopathic systemic hyperostosis (DISH):** is another form of enthesopathy characterised ossification of ALL, PLL, Interspinous ligaments and ligaments of other joints (knee, hip etc…). The prevalence is about 3% in adults older than 40 years. Manifestations and treatment are similar to OPLL.

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