INTRODUCTION

Forestier’s disease is a noninflammatory proliferative enthesopathy that predominantly involves the spine, resulting ultimately in the establishment of characteristic bridging anterolateral osteophytes that ankylose adjacent vertebral bodies. The entity was first described in 1950 by Forestier and Rotes-Querol as senile ankylosing hyperostosis of the spine. Predominant among the pathological entities that can be confused with Forestier’s disease are osteophytes accompanying degenerative disease of the cervical spine, and ankylosing spondylitis. A case of Forestier’s disease accompanying ossification of the posterior longitudinal ligament (OPLL) presenting as complete cord injury is described, which serves to emphasize that significant morbidity, although unusual, may be included in the clinical manifestations of this idiopathic condition.

CASE REPORT

A 65-year-old man weighing 92 kg, fell down during a syncopal episode in his bathroom. He had a 10 year history of diabetes mellitus and 3 year history of dysphagia and neck motion limitation. He was in quadriparetic state (grade II in upper extremities, grade 0 in lower extremities). Simple lateral radiograph and computed tomography scan revealed ossification of anterior longitudinal ligament at C2-C6 level and OPLL at C4-C7 level (Fig. 1). Magnetic resonance images revealed severe cord compression caused by OPLL and spinal stenosis (Fig. 2). Serologic tests for syphilis, rheumatoid factor, antinuclear antibody and serum HLA-B27 were negative and there was no sacroiliac joint ankylosis. Unfor-
dissecting calcified ossification along anterolateral aspect and high signal intensity at C4 level.

Fig. 2. T2-weighted sagittal magnetic resonance image reveals narrow spinal canal and high signal intensity at C4 level.

tunately, there was aspiration of food material and his condition gradually deteriorated. He died of bronchopneumonia while hospitalized awaiting surgery.

DISCUSSION

Forestier's disease affects men more frequently than women (2:1). They are predominantly middle to older age groups. In the 1970s, Resnick et al. coined the term diffuse idiopathic skeletal hyperostosis (DISH) for Forestier's disease. They were the first to direct attention to the extraspinal ossification seen in this disease, pointed out the systemic nature of the process, and established specific radiological criteria for the diagnosis of Forestier's disease that are still used today. These criteria are as follows: 1) flowing calcified ossification along anterolateral aspect of four contiguous vertebral bodies; 2) relative preservation of intervertebral disc height in affected areas; and 3) absence of apophyseal joint ankylosis and sacroiliac joint sclerosis. Resnick et al. established these criteria to separate Forestier's disease from similar disease processes.

The presence of ossification bridging on the anterolateral aspect of four contiguous vertebral bodies and the preservation of disc height in affected areas distinguish Forestier's disease from large anterior cervical osteophytes in the setting of degenerative disc disease. The absence of apophyseal joint ankylosis and sacroiliac joint sclerosis. The osseous structures, CT is occasionally indicated for the purpose of confirmation. Furthermore, MRI can demonstrate a narrowing of the spinal cord even though the ossification when OPLL contains fatty bone marrow, and it can detect the ligament hypertrophy that is an early change in OPLL.

CONCLUSION

Forestier's disease is a rheumatological disorder distinctly different from ankylosing spondylitis. The majority of patients are asymptomatic but it can cause severe myelopathy especially if there is a narrow spinal canal and OPLL. Awareness that OPLL in Forestier's disease can cause neurologic complications may lead to a more thorough radiologic evaluation and prevent permanent neurologic sequelae.

References

6. Resnick D, Guerra J Jr, Robinson CA, Vint VC: Association of diffuse...
idiopathic skeletal hyperostosis (DISH) and calcification and ossification of the posterior longitudinal ligament. AJR Am J Roentgenol 131: 1049-1053, 1978