



Cause of Dysphagia: Diffuse Idiopathic Skeletal Hyperostosis *Disfaji Nedeni: Diffüz İdiyopatik İskelet Hiperosteozisi*

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Anahtar Kelimeler: Diffüz idiyopatik iskelet hiperosteozisi, disfaji, Forestier hastalığı

Dear Editor,

Case 1: A man aged 77 years was admitted to hospital with dysphagia. The patient was having difficulties in swallowing solid and liquid foods for two years without fluctuation of this condition. He was diagnosed as having myasthenia gravis (MG) and he saw no benefit from pyridostigmine (240 mg/day). Neurologic examination showed hypophonia, positive gag reflex, decreased vibration sense in all extremities (6 seconds), and absence of deep tendon reflexes in the lower extremities and examination of the nasopharynx revealed the existence of a smoothly-bordered mass. Complete blood count, biochemical parameters and tests of collagen tissue were normal and he was seronegative for anti-acetylcholine receptor antibody. Repetitive nerve stimulation was normal. No reason for dysphagia was found in an endoscopic examination. A lateral cervical direct radiograph revealed osteophytic spurrings, ligamentous calcifications, and bridging osseous hypertrophic changes, predominantly in the anterior parts of vertebral bodies between C3-C7. Nasopharynx computerized tomography (CT) showed large osteophytic spurrings that pushed the hypopharynx forward, and osteophytic spurrings and calcification of the posterior longitudinal ligament in the spinal canal at the level of the C3-C4 vertebra (Figure 1a, 1b, 1c). The patient was diagnosed as having diffuse idiopathic skeletal hyperostosis (DISH) in light of the clinical and laboratory data.

Case 2: A man aged 71 years with MG was admitted to hospital with ptosis and dysphagia. It was learnt that one year ago he was admitted with ptosis of the right eyelid and diplopia. Repetitive nerve stimulation showed a 15% decrement of compound muscle action potential. His symptoms improved completely with pyridostigmine and methylprednisolone treatment. He was seronegative for anti-acetylcholine receptor antibody and mediastinum CT was normal. The patient reported fluctuating ptosis of the right eyelid, general weakness, and non-fluctuating dysphagia for a couple of months under the treatment of pyridostigmine (180 mg/day) and methylprednisolone (16 mg/day). Neurologic examination showed nasal speech, semiptosis of the right eyelid, mild (4/5) quadriplegia. The gag reflex was positive. Laboratory findings were normal. Intravenous immunoglobulin with a dosage of 0.4 g/kg/day for 5 days was given. The methylprednisolone dose was increased by 8 mg and azathioprine was added. With the exception of dysphagia, the patient's symptoms improved. Lateral cervical direct radiography revealed osteophytic spurrings and ligamentous calcifications predominantly in the anterior parts of vertebral bodies between C3-C7. Cervical spinal magnetic resonance imaging showed median disc protrusions that caused compression of the spinal cord in C3-C4 and C6-C7, and osteophytic spurrings in the anterior parts of vertebral bodies in C3-C7, which caused compression of the esophagus. The patient was diagnosed as having DISH (Figure 2a, 2b, 2c).

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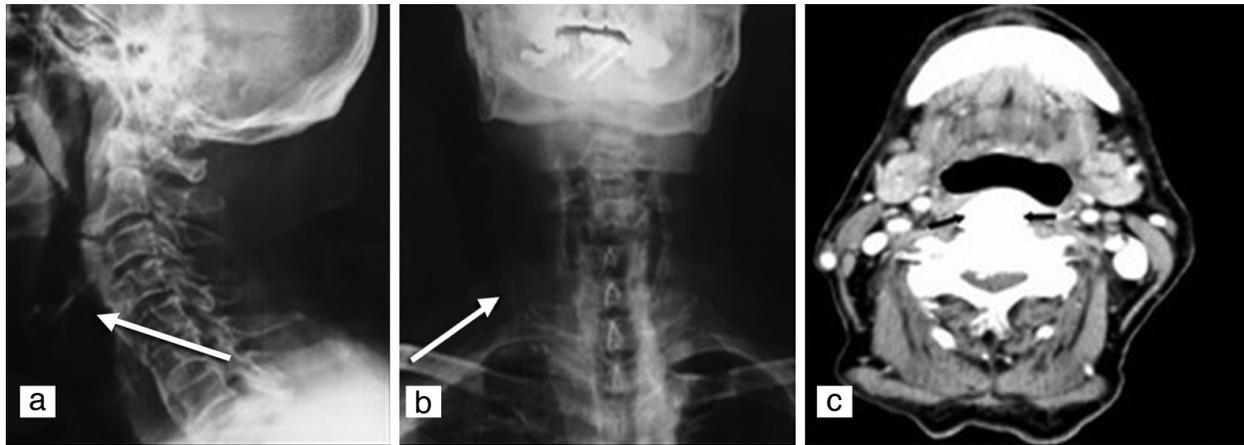


Figure 1. a,b) Osteophytic spurrings and ligamentous calcifications predominantly in the anterior parts of vertebral bodies between C3-C7, b) Osteophytic spurrings and calcification of the posterior longitudinal ligament in the spinal canal at the level of the C3-C4 vertebra

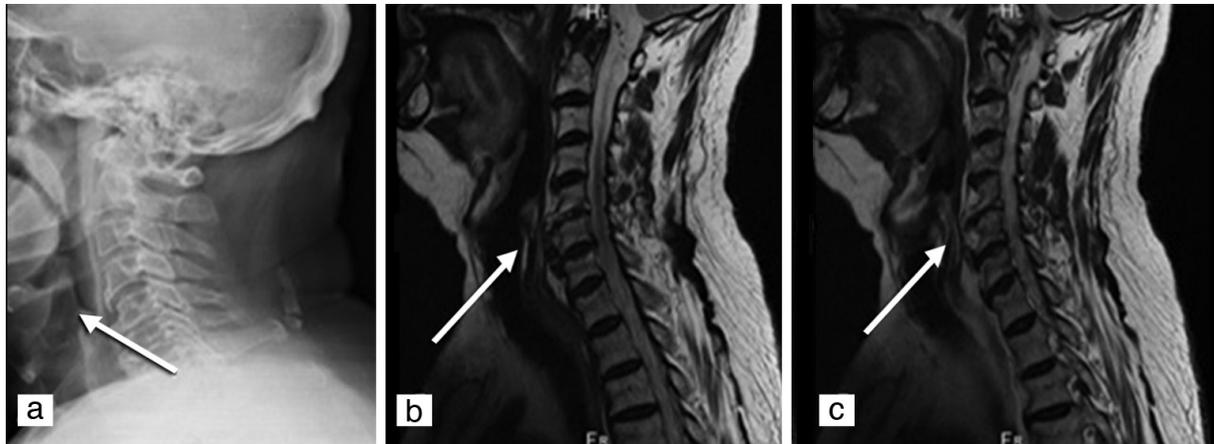


Figure 2. a) Osteophytic spurrings and ligamentous calcifications predominantly in the anterior parts of vertebral bodies between C3-C7. b,c) Median disc protrusions, which caused compression of the spinal cord in C3-C4 and C6-C7 and osteophytic spurrings in the anterior parts of vertebral bodies in C3-C7, which caused compression of the esophagus.

DISH (Forestier disease) is characterized by new bone development in tendons, ligaments or some bones without degenerative, traumatic or postinfectious changes. It was first described by Forestier and Rotes-Queral in 1950 (1). The lesion begins with entheses and develops with osteophytes along ligaments. Shoulder, rib, pelvis, knee, ankle, hand, and primarily vertebra are affected, but discs, facets, and sacroiliac joints are not affected (2). The diagnosis is made by showing new bone development along at least four vertebra without signs of degeneration or sacroileitis (3). This process rarely causes neurologic symptoms by causing impairment of the spine; one of these neurologic symptoms is dysphagia. DISH could contribute to dysphagia in older patients as in the patients we presented, and DISH should be considered in the differential diagnosis of dysphagia.

Ethics

Informed Consent: Consent form was filled out by all participants.

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Authorship Contributions

Surgical and Medical Practices: M.B., D.M., Concept: M.B., E.K., Design: M.B., E.K., Data Collection or Processing: M.B., D.M., Analysis or Interpretation: M.B., E.K., Literature Search: M.B., E.K., Writing: M.B.

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