Fibrous dysplasia in the retropharyngeal area

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Abstract

More fibro-osseous lesions originate in the bones of the extremities than in the craniomaxillofacial bones, scapula, and ribs, which are rarely involved. Fibro-osseous lesions that decrease the quality of life should be treated surgically. We report the case of a fibro-osseous lesion that caused globus pharyngeus and dysphagia. We discuss the clinical, radiologic, and histopathologic features of this case as well as the removal of this unusual lesion by Doppler ultrasound-guided surgery. To the best of our knowledge, no other case of a fibro-osseous lesion in the retropharyngeal area has been reported in the literature.

Case report

A 29-year-old man presented for evaluation of a retropharyngeal mass that had arisen 6 months earlier. His symptoms included globus pharyngeus and dysphagia; he was otherwise healthy. Physical examination revealed that the 3 × 4-cm mass was located on the posterior pharyngeal wall opposite the tongue base. It was protuberant, hard, immobile, and nontender. The overlying mucosa was healthy, without any erosion or ulceration. No accompanying abnormality was detected on endoscopic examination of the nasopharynx, hypopharynx, and larynx, and no palpable mass was found on the neck. Both computed tomography (CT) and magnetic resonance imaging (MRI) showed an ossified, heterogenous, and well-demarcated mass in front of the second cervical vertebra at the right side of the midline, close to the vertebral and internal carotid arteries. Bilateral intra-arterial digital subtraction angiography of the carotid arteries did not detect any feeding vessel.

The fibro-osseous lesion was excised via a transoral approach under general anesthesia. A vertical incision was made on the overlying mucosa parallel to the long axis of the lesion. The mucosa was elevated over the mass and dissected under the microscope. The lesion was located in front of the upper cervical vertebrae just medial to the right tonsillar fossa. Because the lesion’s posteromedial and posterolateral margins were close to the vertebral and right carotid arteries, respectively, the dissection continued under the guidance of mobile Doppler ultrasonography. After all of the margins were carefully exposed, the lesion was excised without causing any damage to vertebral and vascular structures. Because the transoral approach provided adequate exposure, no other surgical manipulation or incision was required. The mucosal incision was primarily closed by absorbable sutures. The patient experienced no perioperative morbidity and required no medication other than an analgesic.

Histopathologic examination of the surgical specimen showed that it was made up of immature trabeculae of osteoid in a fibrocellular and myxoid stroma. At the 14-month follow-up, the patient remained asymptomatic and exhibited no evidence of recurrence.
Fibrous Dysplasia in the Retropharyngeal Area

Discussion

Inflammatory masses and neurovascular tumors are common in the retropharyngeal area, but it is rare for these tumors to arise from the bony, neural, or meningeal components of the cervical spine. To the best of our knowledge, no other case of a fibro-osseous lesion in the retropharyngeal region has been reported in the literature.

Histologic differentiation of fibrous dysplasia and ossifying fibroma is controversial. The stroma of fibrous dysplasia is more collagenous, less vascular, and less cellular than that of ossifying fibroma; the stroma of ossifying fibroma is made up of cellular connective tissue with varying degrees of both osteoblastic and osteoclastic activity. Nevertheless, the biologic behavior of all fibro-osseous lesions is similar, and simple excision generally leads to complete cure, except in the case of aggressive cemento-ossifying fibromas.  

This case was unusual in that the lesion was acentric and located on the anterior surface of the cervical vertebrae.

The patient’s globus sensation and dysphagia were attributable to the fact that the mass had protruded through the posterior pharyngeal wall. Imaging studies revealed that although the lesion did not involve neural and vascular structures, it was close enough to them to warrant Doppler ultrasound guidance to lessen the risk of damage to these nearby structures.

References


Figure 1. The retropharyngeal fibrous dysplasia (arrow) is seen on MRI.

Figure 2. Histopathology shows the osseous tissue (asterisks) in fibrocellular stroma (H&E, original magnification ×20).