



A Very Rare Case of Fibrous Dysplasia Located in Odontoid Process

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Keywords

Fibrous dysplasia; Odontoid process; Cervical spine

Clinical Image

A 47-year-old female patient was admitted to our institution with the chief complaint of persistent neck pain for more than 3 months. She had no symptoms of numbness, weakness, or pain in her extremities. No obvious abnormality was detected through neurological examination. Cervical X-rays, computed tomography (CT) scan and magnetic resonance imaging (MRI) were performed. MRI revealed a lesion in the middle part of odontoid process without involvement of the spinal cord (Figure 1). Laboratory findings were within normal limits. Surgeons and radiologists all tend to the diagnosis of tumor after a heated discussion in our department. In order to confirm the character of the lesion, a biopsy surgery through anterior approach was performed. To our surprise, pathological tissue hematoxylin and eosin (HE) staining supported a diagnosis of fibrous dysplasia (Figure 2). Considering the patient had no obvious neurological abnormality, the cervical stability was not affected and the character of benign tumor, the patient was treated with conservative method with regular follow-up. Fibrous dysplasia, firstly reported by Lichtenstein in 1938, is a bone formation disorder characterized by the replacement of bone and marrow with poorly organized spicules of immature bone in a fibrous connective tissue [1]. Fibrous dysplasia can be divided into two kinds of subtypes: monostotic fibrous dysplasia and polyostotic fibrous dysplasia with or without endocrinopathy. During the past two decades, less than 40 cases of spinal fibrous dysplasia with a limited follow-up duration have been reported according to a review published in 2013 [2]. Fibrous dysplasia involving the cervical spine is rare [3]. To the best of our knowledge, this is the second report of fibrous dysplasia located in the odontoid process since Stompro et al. [4] firstly reported a case in 1989.

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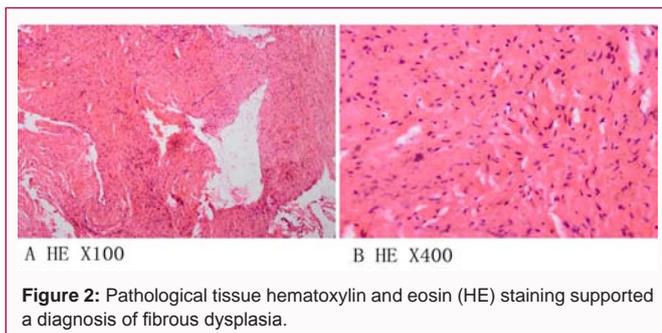
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Figure 1: Magnetic resonance imaging (MRI) revealed a lesion in the middle part of odontoid process without involvement of the spinal cord.



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