An Osteoma Located on the Radial Head: A Case Report

Radius Başı Yerleşimli Osteoma: Olgu Sunumu

Nadiren Görülen Bir Osteoma / A Rarely Seen Osteoma

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Özet

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Abstract
Osteoma are seen mostly at paranasal sinuses and cranium while it is rare at long bones. Osteomas may misdiagnosed as osteochondroma, lateral epicondylitis and other clinical pathologies, hence it is seen probably more common than reported on literature. Excisional biopsy is enough for treatment, and recurrence is rare after excision. We present a rarely seen osteoma case, which is radial head, located.

Keywords
Lateral Epicondylitis, Osteoma, Tumor
Introduction
Osteomas are slow growing benign lesions which are seen especially at young adults [1]. Osteoma is formulated good differentiated bone tissue which is especially lamellar [2]. It is seen mostly at paranasal sinuses and cranium but rare at long bones and when it is seen at long bones, parosteal osteosarcoma, osteochondroma and myositis ossificans should take into consideration [3, 4].

Symptoms are changes according to place and size of tumor. Long bone involvement can show itself with swelling or local pain [1]. A differential diagnosis of elbow pain should include osteochondritis dissecans, epicondylitis, osteonecrosis and tumors [3-5].

Conventional radiography is a single and most effective imaging method. Computed tomography (CT) is needed for optimum evaluation at spinal cord and pelvis. Magnetic resonance imaging (MRI) is used for effect of lesion on spinal cord [6-8]. Excisional biopsy is enough for treatment, and recurrence is rare after excision [9].

We present a rarely seen osteoma case, which is radial head located and treated as lateral epicondylitis. A similar case has not been described in the English literature before according to our knowledge.

Case Report
Our case was a 34 years old female. She had pain on the right elbow and had been treated conservatively for lateral epicondylitis for one year before to admitted us. Three local steroid injections have been applied once a week, and for two weeks physiotherapy have been applied.

On physical examination, pigmentation loss was seen at the lateral of elbow. An immobile form mass was palpable during supination and pronation, and there was click on the radial head. There was no finding on radiographies (Figure 1) and at the laboratory tests.

Surgical debridement and extensor tendon release was planned for chronic lateral epicondylitis. However, during surgery a mass located on radial head was detected so excisional biopsy was applied (Figure 2). Tendon release was not applied. Early physiotherapy was begun after surgery. Osteoma was diagnosed with pathological examination (Figure 3). After three weeks symptoms was totally passed, and patient relieved.

Discussion
Osteomas are known as round or oval tumors, and are arise from subperiostal or endosteal part of bone [10]. Many factors have been accused for pathogenesis of osteoma. Although trauma has not been thought as an important role for pathogenesis [7], O’Connell et al [8] reported three cases which two of them had repeated local trauma history, and trauma should be thought as a cause.

Osteomas are seen usually at cranial bones. It is very rare at the other bones. They are seen at three per thousand of all bone biopsy [3]. They are known as parosteal osteomas when they are seen at tubular bones. The diameter of parosteal lesions are usually one to four centimeters. Small lesions are usually asymptomatic and are identified incidentally [11].

The basic imaging for diagnosis of osteoma is conventional radiography. Typically, it is seen as sharply circumscribed mass at radiographic imaging. Although cortical invasion is not seen with radiography, CT is helpful. Low signal intensity seen in both T1 and T2 sequences of MRI, which is suitable for assessment of cortical bone lesions [6]. There is no high activity at three phased bone scintigraphy at affected extremity. At late phase it is seen as normal bone or minimal increased activity may be seen [4].
Osteochondroma, myositis ossificans and parosteal osteosarcoma should be considered for differential diagnosis and especially excluding of osteosarcoma is very important [4, 12]. On radiographic examination, while osteomas are seen as uniformly bounded homogenic sclerotic mass, a low density zone is seen peripherally at parosteal osteosarcomas. Parosteal osteosarcomas are not homogenic and dense unlike to osteomas [13]. Histologically, osteoma is differentiated from osteoid osteoma with absence of central vascular necrosis, from osteoblastoma with absence of cellular osteoid stromal and from parosteal osteosarcoma with absence of atypical cell [9]. Malign transformation cannot thought if it is limited [9]. In case of atypical clinic and radiographic finding, incisional biopsy is advised and if the osteoma causes pressure or other local symptoms, surgical treatment is advised. Excisional biopsy is main choice for surgical treatment [4, 6-8]. Gorlin and Chaudhary [14] noted that osteomas in the mandible are likely to recur after excision. However, there have been no reports of recurrences following excision of these masses from long bones [9]. In conclusion, osteomas in long bone surface are probably more common than anticipated on the basis of the relatively few case which reported on the English literature. Many such osteomas are probably misdiagnosed as osteochondroma or other clinical pathologies as lateral epicondylitis like our case.

Competing interests
The authors declare that they have no competing interests.

References