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Osteoid osteoma of the coronoid process causing flexion contracture of the elbow

Koronoid çıkıntıda gelişen ve fleksiyon kontraktürüne neden olan osteoid osteoma

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Osteoid osteoma kronik ağrı ile seyreden selim osteoblastik lezyonlardandır. Eklem çevresinde yerleşim gösteren ve klasik radyografik görünümün olmadığı olgularda tanı gecikebilir ve eklem hareket kısıtlılığı ortaya çıkabilir. Yirmi üç yaşında erkek hasta sağ dirsekte yaklaşık bir yıldır var olan ağrı yakınmasıyla başvurdu. Daha önce başka bir merkeze başvuran hastaya verilen non-steroid antienflamatuvar ilaçla ağrının belirgin şekilde azaldığı, ancak zamanla dirsek hareketlerinde kısıtlılık başladığı öğrenildi. Fizik muayenede, sağ dirsek antekubital bölgede palpasyonla ağrı ve 30° fleksiyon kontraktürü saptandı. Bilgisayarlı tomografi ve manyetik rezonans incelemeleri sonrasında hastaya osteoid osteoma tanısı kondu. Lezyon eksizyonla çıkarıldı. Ameliyat sonrasında fleksiyon kontraktürünün düzeldiği görüldü.

Anahtar sözcükler: Dirsek eklemi; osteoma, osteoid/tanı/cerrahi.

Osteoid osteoma is one of the benign osteoblastic lesions that causes chronic pain. Diagnosis may be delayed in juxta-articular lesions in which characteristic radiographic findings may not be present, resulting in limited joint motion. A 23-year-old patient presented with a complaint of pain in the right elbow of one-year history. He sought medical treatment at another center and was prescribed non-steroidal anti-inflammatory treatment that resulted in significant pain relief; however, limitations of elbow motion ensued. On physical examination, there was pain in the antecubital part of the right elbow on palpation and a flexion contracture of 30 degrees. Findings of computed tomography and magnetic resonance imaging were consistent with osteoid osteoma. The lesion was excised and postoperative controls showed no flexion contracture.

Key words: Elbow joint; osteoma, osteoid/diagnosis/surgery.

Osteoid osteoma is one of the benign lesions which usually locates in long bone's diaphysis. It causes pain especially at night regardless of activity.[1] Significant elimination of the pain with the use of aspirin and non-steroidal anti-inflammatory drug (NSAIDs) is patognomic for the lesion. It is easily recognizable with the seen of nidus surrounded by a sclerotic ring. Lesion is distunguished from the normal medullary bone tissue with a sharp limits.

Scintigraphy and computed tomography are useful in cases that the plain radiograhs are inadequate for diagnosis.

Osteoid osteoma which is stiuated near a joint will not show typical radiographic findings.[2,3] In these cases diagnosis problems can be occured because of not being listed in differential diagnosis. Elbow joint is one of the inordinary places that osteoid osteoma is localized.[4] A few cases were reported about this location.[5,6] Becker et al.[7] rewiewed 33 cases with their own case and only reported one lesion located in the coronoid process. Later other cases that were localized in the coronoid process were reported.[8,9]

Case report

A 23 year old male patient presented with a complaint of pain during last one year especially

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at night in the right elbow without any history of trauma. No pathological sign was detected in the plain radiographs(figure 1 a,b) that were taken in another center and nonsteroidal anti inflamatuary drug(diclofenac sodium).was advised. Even though he had a significant pain relief with that drug in the meantime he has a restriction in his elbow motion...

On physical examination, there was a pain in the antecubital part of the right elbow on palpation. Elbow's range of motion was normal except 30 degree flexion contracture(figure 1 c). Findings of computed tomography and magnetic resonance imaging were consistent with osteoid osteoma(figure 1d-f). Surgical excision was planned and performed with

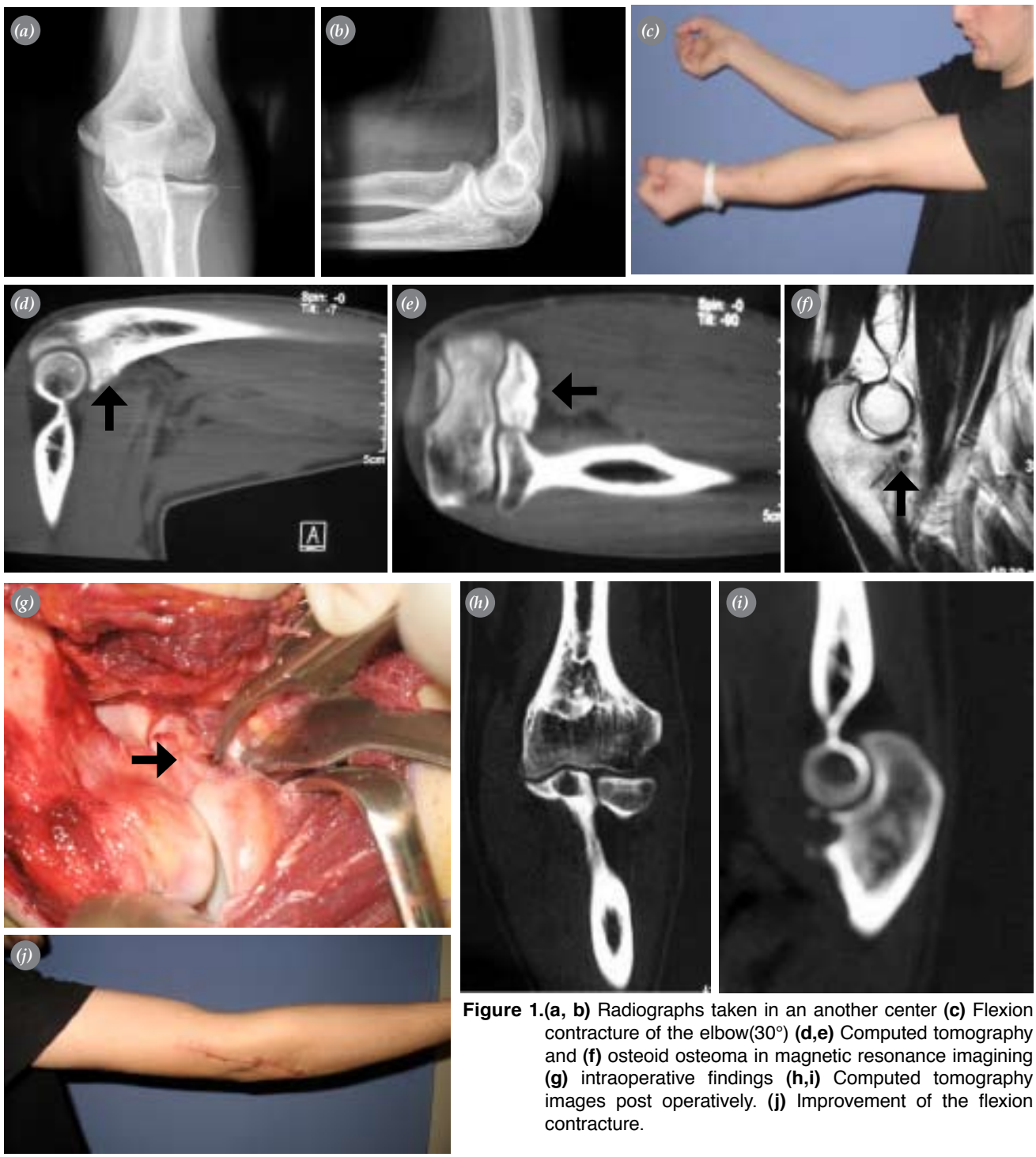

Figure 1.(a, b) Radiographs taken in an another center **(c)** Flexion contracture of the elbow(30°) **(d,e)** Computed tomography and **(f)** osteoid osteoma in magnetic resonance imagining **(g)** intraoperative findings **(h,i)** Computed tomography images post operatively. **(j)** Improvement of the flexion contracture.

the posterolateral incision (Kocher). Subcutaneous tissue was divided in line with the skin incision and intermuscular septum was passed through extansor carpi radialis ancaneus muscle.joint capsule was incised with avoiding damage to the postrior interroseous nevre and proximal radioulnar joint was reached. Cortical irregularity was seen in the coronoid procee near the articulation of the radial head(figure 1 g). Nidus of the osteoid osteoma was excised with the osteotom and high speed burr. Radial nevre palsy was seen in the post operatively examination of the patient. Active and pasive were permitted after the hemovac suction had been removed. Rehabilitation program was started as soon as the sutures had been removed. His complaints were fully recovered and was seen that the lesion was totally excised in the control computerized tomography scans(figure 1h,i). radial palsy and flexion contracture were recovered at the 45th day postoperatively (figure 1j) . Diagnosis was confirmed with the pathological examination.

Discussion

Eklem çevresinde yerleşim gösteren osteoid osteomIt's hard to diagnose the juxta-articular osteid osteoma lesions. Orthopaedic surgeons usually do not include this benign lesion into differential diagnosis. Synovitis causing flexion contracture is often occured in the cases that are hardly and lately diagnosed. [3,9] Restriction of the elbow motion causes difficulties in diagnosis. While NSAID can resolve the pain in these cases it cannot diminish the restriction on the range of motion. Computerized tomography, magnetic resonance imaginaing and scintigraphy help to diagnose osteoid osteoma.[9]

Surgical excision is the preferred choice fort he treatment of the osteoid osteoma. Percuteneaus CT guided ablation is another choice.[9] Flexion contracture can be resolved and range of motion can be achieved due to early diagnosis and treatment.

Patients who complaints of long-lasting pain that responds to analgesic treatment without a history of trauma, and romatological causes were excluded, osteoid osteoma differential diagnosis should be kept in mind.

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