

Tumoral Calcinosis Around the Elbow: A Case Report

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ABSTRACT

Tumoral calcinosis is a rare ectopic calcification seen around large joints. Large joints are seen in the hip, shoulder and elbow, and less frequently in the foot and ankle. It is unclear why the first two decades of life are caused by familial predisposing aphakia, as well as being seen more frequently. We presented Magnetic Resonance Imaging findings of the patient who presented with tumoral calcinosis elbow pain clinic. Tumoral calcinosis should be kept in mind in differential diagnosis when a mass with soft tissue periarticular calcification is seen in the vicinity of large joints.

Keywords: Tumoral calcinosis, elbow, joint, MRG

Introduction

Tumoral calcinosis (TC) is a rare ectopic calcification seen around large joints (1). Large joints are seen in the hip, shoulder and elbow, and less frequently in the foot and ankle (2). It is unclear why the first two decades of life are caused by familial predisposing aphakia, as well as being seen more frequently (3). We presented Magnetic Resonance Imaging (MRI) findings of the patient who presented with TC elbow pain clinic.

Case Presentation

T1AG Sagittal T2AG Sagittal, PDW Coronal, and PDW SPIR Axial sequences were obtained in the patient who complained of elbow pain and who applied to the radiology department for MR extraction.

Calcification foci (Figs. 1, 2, 3 and 4) were observed in a number of different sizes, with T1AG axial and coronal, PDW coronal and PDW SPIR coronal sequences clustered together in a multitude of hypo intense periarticular

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assemblies. On direct radiographs it was confirmed that these lesions were the calcification center (Figs. 5 and 6).

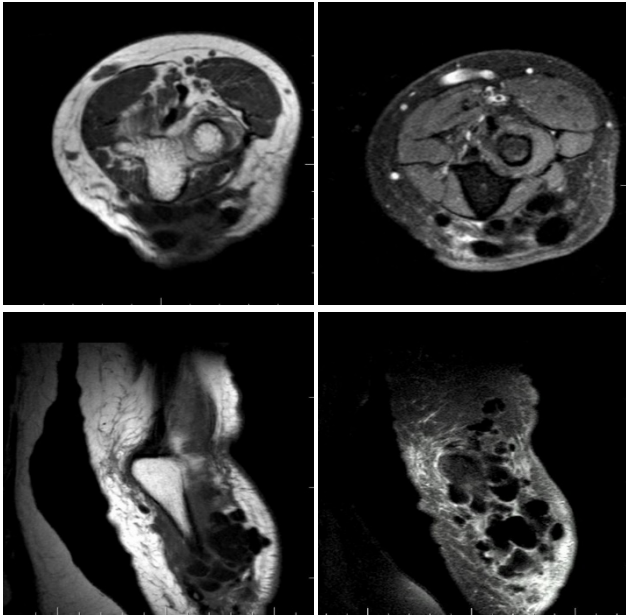


Figure-1, 2, 3 and 4. T1AG axial and coronal, PDW coronal and PDW SPIR axial sequences observed in various hypo intense varying sizes of periarticular in the elbow joint.



Figure-5 and 6. An X-ray foci of calcification around the elbow joint are observed.

Discussion

TC shows periarticular localization, especially in regions under compression, in the form of masses that are not directly related to the neighboring joint space. There are white sand, bruise color and texture or calcification in the tissues (4). This calcification pathogenesis in the TC is due to trauma-dystrophy, or traumatism (5,6). Clinical symptoms such as pain and skin erosion can be seen in the TC (7).

The idiopathic form of TC is the family. Another form of TC is due to the high calcium-phosphorus ratio seen in chronic renal failure (8). Diagnosis on CT can be made with radiographic findings and the medical story of the patient. Radio graphically; both TC and idiopathic renal insufficiency are secondary to calcification sites that cause multiple well-defined pavement stones. MRI is seen as hypo intense lesion in all sequences. Additionally, edema due to inflammation around pathological calcification is seen as a hyper intense signal in T2AG and Inversion Recovery (IR) sequences (8, 9). Heterotopic ossification, calcific hemangiomas or lymphangiomas, calcified soft tissue calcification, paraosteal osteosarcoma and synovial osteochondromatosis. In synovial osteochondromatosis loose body bodies may be calcified, but they are intraarticularly located. Clinical history of the disease and location of lesion are of great importance in differential diagnosis (7, 10).

TC should be kept in mind in differential diagnosis when a mass with soft tissue periarticular calcification is seen in the vicinity of large joints.

Acknowledgements

The patient applied with his own consent for the MRI. The patient applied to the radiology clinic for MRI withdrawal from the orthopedic clinic.

Reference

1. Oeggerli P, Maurer R, Kistler H. Tumoral calcinosis with superinfection and sepsis Schweiz Med Wochenschr 1991; 121 (38): 1387-139
2. Prahinski JR, Schaefer RA. Tumoral calcinosis of the foot. Foot Ankle Int 2001; 22: 911-913
3. Sledz K., et al., Tumoral Calcinosis of the Temporomandibular Joint: CT and MR Findings, AJNR 16: 782-785, Apr 1995 0195-6108 / 95 / 1604-0782
4. Yurdođlu C., Özbaydar MU., Adaş M. et al. Familial tumoral calcinosis in three patients in the same family, Acta Orthop Traumatol Turc 2007; 41 (3): 244-248.
5. Slavin RE, Wen J, Kumar D, Evans EB. Familial tumoral calcinosis. A clinical, histopathologic, and ultrastructural study with an analysis of its calcifying process and pathogenesis. Am J Surg Pathol 1993; 17: 788-802
6. Boskey AL, Vigorita VJ, Sencer O, Stuchin SA, Lane JM. Chemical, Microscopic, and ultrastructural characterization of the mineral deposits in tumoral calcinosis. Clin Orthop Relat Res 1983; (178): 258-69.
7. Kumara, Singh P, Dobhal H. Case of Recurrent Tumoral Calcinosis in a Young Female, World Journal of Endocrine Surgery, January-April 2013; 5 (1): 18-20
8. Steinbach LS et al., Tumoral calcinosis: radiologic-pathologic correlation, Skeletal Radiol (1995) 24: 573-578
9. Farzan M, Farhood AR. , Tumoral Calcinosis: What is the treatment? Report of two cases of different types and review of the literature, Am J Orthop. 2011; 40 (9): E170-E176.
10. Sledz K, Ortiz O, Wax M, Bouguot J, Tumoral Calcinosis of the Temporomandibular Joint: CT and MR Findings, AJNR: 16, April 1995

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