



Para-articular extraskeletal osteochondroma: the nomenclature dilemma and difficulties in differential diagnosis

Dear Editor,

We read with interest the article published at your journal in Vol 42, No 2 (2012) titled "Large para-articular osteochondroma of the knee: a case report" written by Mr Roop Singh et al.^[1] We have a couple of minor contributions to this article.

The authors stated at the introduction section that "Para-articular osteochondroma comprises a small subgroup of these extraskeletal osteochondroma that commonly affect the knee joint, with a few involving the hip, ankle and elbow".^[1] However there is no consensus in the literature about the nomenclature of this disease. The name of this disease changes from extraskeletal osteochondroma, extraskeletal cartilagenous tumor, capsular chondroma, para-articular extraskeletal osteochondroma to solitary synovial osteochondroma.^[2-6]

Even in the old literature the terms synovial chondromata, joint chondromata, diffuse capsular chondromata were used.^[7] Case presented in this article; because of the lesion within the joint it would be appropriate to describe the term solitary synovial osteochondroma in the introduction section.

In such case large mass within the joint; it is mandatory to rule out tumoral process at the differential diagnosis of extraskeletal paraarticular osteochondroma. Chondrosarcoma here is the most important priority to exclude. The author stated that histopathologic examination is the most accurate tool that differentiate chondrosarcoma from a benign process.^[1] However pre-operative differentiation from a malign process to a benign one is very important to make a surgical plan before the operation. For this reason the thickness of cartilage cap that smaller than 2 cm at MRI examination is an important criteria to rule out chondrosarcoma.^[2]

Sometimes synovial fluid nourishes the osteochondral fragments that avulsed from the cartilage (osteochondritis dissecans) which can viable and increase from the milimeters to few centimeters and this entity can be

confused with para-articular extraskeletal osteochondroma. For this reason despite the no history of trauma at the anemnesis, the remarking of the tibial, femoral and patellar cartilage integrity at pre-operative MRI evaluation and peri-operative physical examination strengthens this well documented article in scientific base.

A scan of literature revealed in a skeletally mature patient with Trevor's disease misdiagnosed as having post-traumatic osseous fragments in the ankle joint because of trauma history in anamnesis.^[8]

Histopathologically, it was not possible to distinguish Trevor's disease from osteochondroma.^[9]

Trevor disease can grow into the joint and commonly targets the knee joint.^[10,11] However the Trevor disease manifests in children and adolescents.^[12-14] In this article the presented case was 52 years old and it is impossible to reach this age without giving any symptom with Trevor disease. For that reason in this case to rule out Trevor disease is very easy.

However, we congratulate the authors for focusing on a rare entity with difficult differential diagnostic properties.

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Authors' reply

Sir,

We appreciate the authors of the Letter to Editor entitled "Large para-articular osteochondroma of the knee joint: a case report" for the interest shown in our paper and thank them for further contributing to the article.

It is true that the name of this disease changes from extraskelatal osteochondroma, extraskelatal cartilaginous tumor, capsular chondroma, para-articular extraskelatal osteochondroma to solitary synovial osteochondroma.^[1-5] Even in the old literature the terms synovial chondromata, joint chondromata, diffuse capsular chondromata were used.^[6] It was Milgram and Jasty^[7] who clarified that lesions were a different entity, and postulated that the term para-articular osteochondroma was the most appropriate, keeping in the mind the morphology and histopathology of the lesions. Since that time, although the reports have been few and isolated, this has become a recognized entity.

Solitary synovial osteochondroma is a rare variant of synovial osteochondromatosis. These tumors arise from the synovial cells themselves or the primitive cells lying within the synovium.^[8] These tumors are formed probably by metaplasia of the synovial cells to chondrocytes, giving rise to islands of cartilage within the synovium.^[9]

We agree with the authors of the letter that it is mandatory to rule out tumoral process at the differential diagnosis of extraskelatal para-articular osteochondromas (ESPAOCs). It is possible to differentiate a malignant process from a benign one preoperatively. Absence of soft tissue mass, cartilage cap smaller than 2 centimeters, and distinct borders on MRI are important criteria to rule out chondrosarcoma, but diagnosis is confirmed only after histopathological examination.^[1,4] However, confusion may arise with other more aggressive lesions. Cytological atypia, seen in some cases, may give the impression of synovial chondromatosis or even chondrosarcoma. Mesenchymomas of the soft tissues have been shown to have pathological features similar to the reported para-articular osteochondromas.^[10] A careful correlation of histopathologic and radiographic findings allows distinction between chondrosarcoma and ESPAOCs.^[11] In the present, case soft tissue component was absent; and the lesion had distinct borders and cartilage cap of 0.75 mm on MRI.

In the present case, preoperative MRI and perioperative physical examination of the tibial, femoral and patellar cartilage did not show any sign of osteochondritis dissecans. It is highly unusual for osteochondral

fragments to enlarge to such size as observed in the present case.

Trevor's disease (tarso-epiphyseal aklasis; dysplasia epiphysealis hemimelica) is a distinct disease and manifest in children and adolescents; although cases had been reported in adults also.^[12-14] Kettelkamp et al. reported six cases in whom lesions were first observed in adult life and three of these cases had been aware of the lesions during growth period.^[14] Sometimes it may not be possible to distinguish Trevor's disease from osteochondromas microscopically; but other clinico-radiologic features may help in distinguishing two disease entities.^[14]

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