Nonossifying Fibroma (Fibroxanthoma)

By Matteo Battista, TSRM [2]

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History: A 15-year-old male patient, suffering from gonalgia without apparent trauma, receives an X-ray of his left knee.
Fig. 1 RX sx Knee (AP)
X-ray examination shows lithic lesion to the map, eccentric, with localized sclerotics margins at the level of the proximal tibia metaphysis sx.
Fig. 2 TC bone window
Fig. 3 TC soft window
CT examination confirms, in the medial, osteolitica lesion that presents solid formation of calcium type inside, bounded anteriorly and to the sides by sclerotic border, while regular later determines broad erosion of cortical.
Fig. 4 FSE T1 MRI image ax
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Fig. 4 FSE T2 MRI image ax
The MRI has documented decreased signal intensity on T1 and T2 sequences.

**Diagnosis:** Nonossifying fibroma (fibroxanthoma).

**Discussion:** Fibrous cortical lesions and the fibroids do not ossificanti are quite common and fibrous lesions are observed predominantly in children and adolescents. More common in boys than in girls, have a predilection for long bones, femur and tibia. These lesions are not true neoplasms and are considered by many researchers an evolutionary flaw. Most of these lesions disappear spontaneously, but a small portion of them may continue to increase; When they go in the medullary portion of a bone, they are called fibroma non ossificans. The term "fibroxantoma" is preferred by authors in that better reflects the underlying anatomic-pathologic lesion, which is made up of fusiform fibroblasts, scattered giant cells and frothy (xantomia) cells.

X-ray examination of fibroxantoma is potentially pathognomonic since that process looks like lithic lesion to map, with festoons sclerotics edges; the TC may prove best thinning or interruption of cortical and medullary involvement and can delineate more precisely early pathological fracture. HU values to the fibroid is not ossificans are higher than normal bone marrow.

Are occasional findings examining MRI showing intensity signal from intermediate to low both in T1 weighted sequences that in T2. Most injuries undergo a spontaneous involution (maturation) through remodeling or sclerosis. Some larger lesions may be complicated by pathological fractures. So if one of them is voluminous and occupies 50 percent or more of the medullary cavity, curettage with bone grafting is the treatment of choice.

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