Sir,

Intramuscular haemangioma is a rare, benign tumour, constituting less than 1% of all haemangiomas. The presenting symptoms are often vague, making early diagnosis more challenging for the radiologist. However, early and correct diagnosis is important to avoid mismanagement and complications which might occur due to enlargement of the tumour.1 Plain radiographs, ultrasound, CT scan and MRI may be helpful in reaching a correct diagnosis, along with the history and physical examination.2 Intramuscular haemangiomas are more common in muscles of lower extremity than in upper extremity.

An adult female of 33 years presented with the vague complaint of mild pain and tenderness in right distal arm for the last 2 years, with no associated swelling or discoloration. Physical examination did not reveal any significant local abnormality. However, considering the long standing nature of the symptoms, a plain radiograph of the right humerus was advised, which showed a subtle smooth periosteal reaction along lateral distal humeral diaphysis. No associated soft tissue swelling or calcification was appreciated.

Multisequential, multiplanar MRI of the right arm was carried out without and with intravenous gadolinium. MRI demonstrated a lobulated, septated lesion measuring 16 x 8 x 7 mm, in right triceps muscle in distal arm, abutting the adjacent humeral diaphysis. The lesion showed intermediate signal to adjacent muscles on T-1 weighted images, heterogenous high signal on T-2 weighted and FS images, with heterogenous post-contract enhancement (Figure 1). Solid smooth periosteal reaction was observed in adjacent humerus with abnormal signals in the cortical bone also, indicating reactive changes. Based on these findings, the diagnosis of intramuscular haemangioma in right triceps muscle was made.

Ultrasound of the lesion was performed, showing a well defined echogenic lesion with cystic areas and vascularity on color Doppler, further validating the diagnosis made on MRI. CT scan was also done, revealing a subtle low attenuation lesion in triceps muscle with no calcifications.

Since the lesion was small and causing mild discomfort, patient refused any surgical treatment.

Haemangioma is a benign, common, vascular tumour that occurs in children, usually in limbs or trunk. Intramuscular haemangioma is an uncommon subset of dead soft tissue haemangiomas, which presents at a later age, with no gender predilection. Intramuscular haemangioma, adjacent to a bone, can also be associated with reactive changes in the bone which include periostal reaction, cortical thickening, erosion, medullary sclerosis, trabecular coarsening and bone atrophy.3 Bone changes demonstrate a relationship with the proximity of haemangioma to the bone. The lesions presenting initially with bone changes might be mistaken for periosteal or parosteal tumours and present a diagnostic dilemma.4

Plain radiographs, ultrasound, CT scan and MRI are the imaging modalities contributing in the diagnosis and evaluation of intramuscular haemangioma.5 MRI is the investigation of choice, for characterization and local extent of soft tissue haemangioma.3 On T1-weighted images, a haemangioma appears as low-to-intermediate signal intensity mass with peripheral high signal intensity due to fat overgrowth. On T2-weighted images, it shows areas of high signal intensity due to vascular tissue and intermediate signal intensity due to fat. MRI helps to differentiate haemangioma from other soft tissue tumours, as in this case. It also provides information about the relationship with neurovascular bundle and medullary bone changes.

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