PAROSTEAL LIPOMAS OF THE RIGHT FEMUR- A CASE REPORT
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ABSTRACT

BACKGROUND
Parosteal lipoma is an extremely rare benign tumour accounting for 0.3% of all lipomas. They are composed mainly of mature adipose tissue with a bony component. Parosteal lipomas often induce a periosteal reaction. The most frequently affected sites are the diaphysis and metaphyseal regions of long bones. They are usually asymptomatic and affecting mainly adults aged over 40. We are presenting a 47-year-old gentleman who presented to us with complaints of an asymptomatic swelling over his right thigh gradually progressive in size. On evaluation, he was diagnosed to have a 12 x 8 x 6 cm sized parosteal lipoma arising from the right femur. He underwent excision of the lipoma. Postoperative period was uneventful.

KEYWORDS
Parosteal, Lipoma, Osseous.

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BACKGROUND
Lipomas occur in 2% of the population and constitute of 50% of all musculoskeletal soft tissue tumours. They are composed of mature lipocytes. They are considered as the most common type of soft tissue mesenchymal tumours. Typically, they are situated in the subcutaneous plane.

Less frequently, lipomas can develop inside the muscle and are called intramuscular lipomas or they may arise between the muscles where they are termed intermuscular lipomas. In 1853, Paget described a lipoma infiltrated into the trapezius muscle and in 1946 Regan introduced the term infiltrating lipoma.1-2 Later, Greenberg et al recognised that infiltrating lipomas maybe either intermuscular or intramuscular using the classification of Moriconi, which differentiated between lipomas based on whether they were located between or within the muscles.3,4

Intramuscular lipomas have been commonly investigated and categorised in the same group as other deep-seated and superficial lipomatous lesions. Sometimes, their clinical, histological and imaging characteristics resemble a well-differentiated liposarcoma.5 The most common malignant soft tissue mass is malignant fibrous histiocytoma followed by liposarcoma, which resembles lipomas on computed tomography and magnetic resonance imaging and is most common in the thigh.6 Solitary lipoma occurs with equal frequency in males and females with multiple lipomas more common in males. These above-mentioned facts make the clinical diagnosis of lipoma difficult.

Osseous lipomas have been classified according to their site of origin- 1. Intraosseous- Within the bone. 2. Juxta cortical- On the surface of the bone.

Surface osseous lipomas are further subdivided into- a) Parosteal lipomas. b) Subparosteal lipomas.

Parosteal lipomas often induce a periosteal reaction. The most frequently affected sites are the diaphysis and metaphyseal regions of long bones.7

The parosteal type is a rare tumour accounting for 0.3% of all lipomas. They are usually asymptomatic and affecting mainly adults aged over 40.8,9

The first detailed case report of a parosteal lipoma of the femur with hyperostosis was published by Kenin et al in 1959.9,10

CASE REPORT
A 47-year-old healthy gentleman noticed a gradual increase in bulk of his right thigh for 5 years duration. It was not associated with pain or difficulty in walking. He could not remember any history of trauma to his right thigh. There was no history of swelling over the right lower limb on longstanding or there was no history of recurrent fevers. He was a diagnosed case of systemic hypertension on regular medications. He was also on antidepressants. There was no family history of any cancers.

On clinical examination, he was well-built and well-nourished, was haemodynamically stable and systemic examination was normal. Examination of the right thigh revealed a mass of size 15 x 10 cms over the distal two-thirds of the anteromedial aspect of the thigh, which was soft in consistency, nontender, noncompressible with well-
defined margins and was situated in a plane deep to the vasti muscles.

He was further evaluated with an MRI of the right thigh, which revealed a benign well-circumscribed intramuscular lesion of size 12 x 8 x 6 cms deep to vastus intermedius muscle. He was posted for right thigh exploration under spinal anaesthesia. Intraoperatively, a 14 x 8 cm sized lipoma was seen in the anterior compartment of the thigh below the vastus intermedius muscle. It was a parosteal lipoma arising from the femur. The adjacent bone was found to be normal. Biopsy confirmed that it was a lipoma. The patient recovered well from the surgery. He was discharged on day 10.

**DISCUSSION**

Bone lipomas are less common accounting for less than 0.1% of primary bone tumours and 15% of all osseous lipoma and seen often affecting the femur. In spite of the close relationship of bone lipoma with the periosteum, the bone maybe normal. Rarely reactive changes are seen in adjacent bone. According to Bispo Junior RZ et al, a total of 28 cases of parosteal lipoma of the femur with hyperostosis were reported in the literature so far. Computed tomography and magnetic nuclear resonance help with the diagnosis of the cases. Treatment consists of resecting the lipomatous tumour with further excision of the bone and periosteal excrescence in cases with hyperostosis. The prognosis is good. There are no reports of malignancy or recurrence so far in literature.
CONCLUSION
Parosteal lipomas are rare neoplasia. They have no proven malignant potential. These tumours can be resected without any damage to the adjacent structures. The postoperative morbidity is very less.

REFERENCES