

Osteochondroma with Neurovascular Complication: A Case Report

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Introduction

Cartilage capped exophytic lesion on external surface of bone. Benign tumour with distal femur as the most common site and stops growing at physeal maturation age. Tumour Medullary canal continuous with parent bone and lesion covered with periosteum with Complications include of nerve impingement and pseudoaneurysm of overlying vessel.

CASE - 10 year old female child presented with complain of swelling over posterior aspect of distal part of left thigh for four months with occasional episodes of numbness and paleness in left leg and foot for last 1 month without any history of preceding trauma /fever.

- **On examination** – swelling was ~4×3 cm in size, no discoloration of overlying skin, local temperature normal, non compressible, non reducible, not adherent to overlying skin, fixed to underlying bone, non tender, progressive in nature, well circumscribed with defined margins oval shaped swelling, Bony hard consistency. Episodes of numbness over left leg and paleness over left toes on walking and long standing for last 1 month and Left knee ROM - normal.

MANAGEMENT : 1) Investigations:

- **X Ray** – sessile bony outgrowth arising from posterior aspect of left distal Femur metaphysis with clear margins without breach in cortex, ~ 4×3 cm in size.
- **MRI** – Shows continuity with the cortex and medullary cavity of parent bone. Lesion is Posteromedial compressing the adjacent popliteal neuro-vascular bundle. The overlying cartilage thickness measures ~ 2 mm.
- **Doppler study (left lower limb)** – increase in peak systolic velocity and occlusion in popliteal vessel distal to lesion .
- Haematological investigations and chest X ray - within normal limits.
- **Biopsy** - Excisional biopsy done and specimen sent for histopathological examination.



2) Treatment

Surgery : We performed Extraperiosteal resection of tumour with biopsy using posterior approach to distal thigh. Below knee cylindrical cast was applied and suture removal was done on post operative day twelve. Full weight bearing was allowed after 2 weeks with support and no episodes of numbness and paleness on standing ,walking and on playing reported by the patient.



At 4 months of follow-up patient was able to walk without support.



DISCUSSION:

The current method of treatment for Osteochondroma is Extraperiosteal excision warranted in benign large lesions where local pressure effects may occur, cosmetically disabling lesion or in adults where the risk of malignant transformation warrants removal. In asymptomatic lesions, treatment is not indicated and careful observation with regular follow up advised. In this case there was a Osteochondroma of left distal femur with compression of popliteal neurovascular bundle so, we chose extraperiosteal resection of tumour to counter the local pressure on neurovascular bundle.

Conclusion :

We found Extraperiosteal resection is a reasonable salvage option for symptomatic osteochondroma where conservative management is not feasible. The secondary malignancy requires wide excision for cure. Patients with multiple hereditary exostoses may require osteotomies to correct deformity.