Case Report

Rare Spindle Cell Hemangioma of Bone: A Case Report

Leena Patwardhan*, Sunita Sharma

Department of Pathology, BJ Wadia Hospitals

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***Corresponding Author**:
Dr Leena Patwardhan
leenapatwardhan68@gmail.com

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Abstract

Spindle cell haemangioma (SCH), a rare vascular tumour usually appears as a cutaneous nodule and subcutaneous nodules in the extremities in adults in 4 th and 5 th decades of life. Its occurrence in bone and paediatric age group is extremely rare. We report a case of SCH arising at the lateral condyle of femur in a 16 year old female. It is important to avoid misdiagnosis as these lesions are considered to be benign, non neoplastic reactive vascular proliferations, with moderate incidence of recurrence.

Keywords:

Bone tumours, femur, spindle cell haemangioma, vascular tumours

Introduction

Spindle cell hemangioma (SCH), formerly known as spindle cell hemangioendothelioma, was first described by Weiss and Enzinger in 1986. It is a unique vascular tumour, composed of cavernous spaces and Kaposi like solid areas. [1-3]. Spindle cell hemangioma affects the dermis and sub cutis of extremities, causing formation of nodules. The occurrence of SCH in bones is extremely rare. We report a 16-year-old female with SCH involving the lateral condyle of femur with normal overlying skin and subcutaneous tissues.

Case Report

A 16-year-old girl presented with left knee pain since 8 months. There was a history of intermittent swelling around left knee joint, which aggravated with exertion and relieved with rest and analgesics. There was a history of fever and weight loss. No

history of trauma.

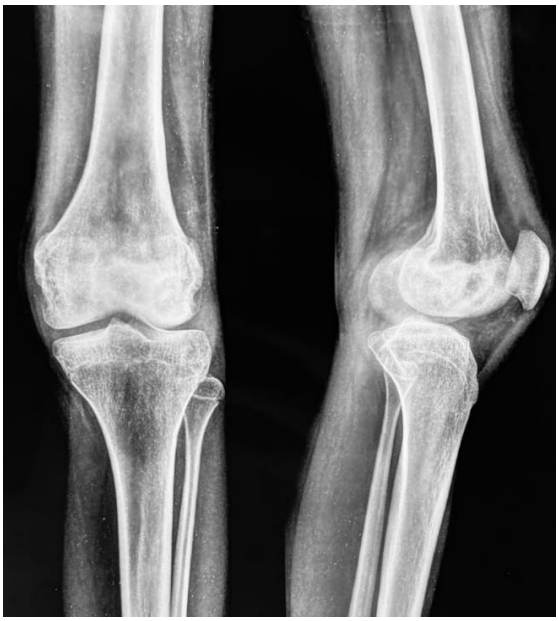

Figure 1 X ray showed a well circumscribed eccentric lytic lesion in lateral condyle femur with lateral cortical breach

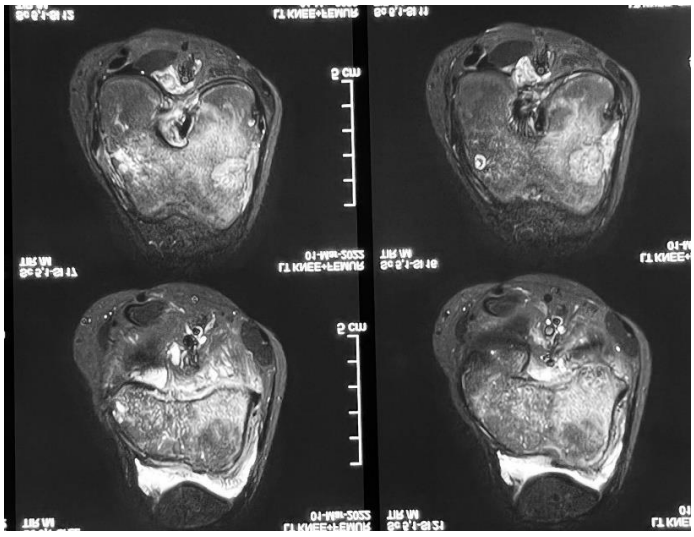

Figure 2 MRI was suggestive of chronic primary epiphyseal infection likely Koch's

Curettage and debridement of the lesion was done and the material was sent for histopathology.

Gross examination

Hemorrhagic soft tissue fragments were received in the histopathology section and the sample was entirely processed.

Microscopic examination

The biopsy reveals fragments of bone and connective tissue. The connective tissue shows few irregular cavernous spaces within the solid areas. The cavernous spaces are lined by flat endothelial cells. The lining is focally denuded off. Solid areas show spindle-shaped cells arranged in short interlacing fascicles and slit like spaces. Many endothelial cells have prominent

intracytoplasmic vacuoles. Kaposi like vague glomeruloid nests are also seen focally; however there are no hyaline globules seen within them. There is no raised mitotic activity seen and there is no nuclear atypia. No granulomas or inflammatory infiltrate seen

Immunohistochemistry results showed strong reactivity in cavernous area for CD34 antibody, whereas spindled cells were focally positive for smooth-muscle actin. Human-Herpes-Virus8 (HHV8) antibody was negative. From these findings, the diagnosis of Spindle Cell Haemangioma was made.

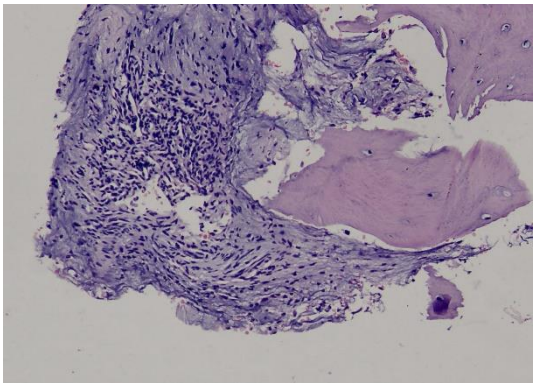

Figure 3 Spindle cell Hemangioma, H-E stain, 5 x original magnification.

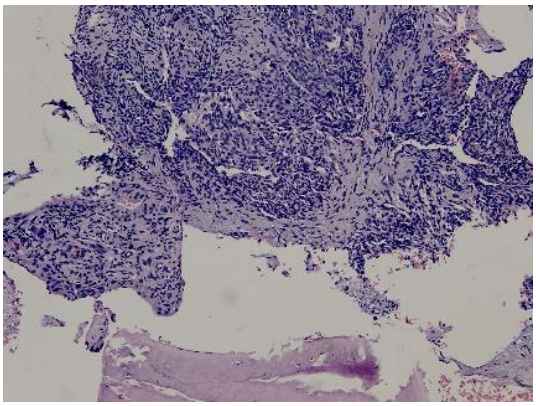

Figure 4 Spindle cell hemangioma, H-E stain, 10 x original magnification

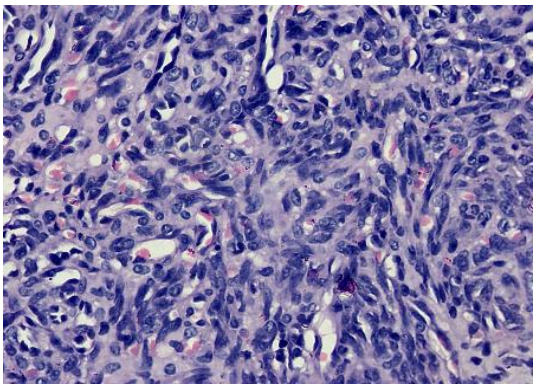

Figure 5 Spindle cell hemangioma, H-E stain, 40 x original magnification

Discussion

Spindle cell haemangioma is a rare vascular tumour affecting almost exclusively the distal extremities, less often it can be seen in proximal extremities, trunk and head and neck [5, 6]. This benign vascular neoplasm shows male predominance and a predilection for soft tissues of distal extremities, particularly the hand. The histologic features overlap with those of cavernous haemangioma and Kaposi sarcoma.

Due to its appearance and limited metastatic potential, it was previously described as low-grade angiosarcoma / spindle cell hemangioendothelioma; but is now considered to be benign vascular lesion [7]. While the course is benign, the lesion tends to recur [8]. Multifocal SCHs have been reported in association with Maffucci syndrome, Ollier disease and Millory disease. The treatment of choice consists of local excision.

Conclusion

Spindle cell hemangioma is considered to be an uncommon and under recognized vascular tumour. All general pathologists need to be aware of this entity, because of high rate of recurrence and frequent association with other diseases. Surgical excision remains the treatment of choice.

Informed Consent: As identity of the patient is not disclosed; informed consent is not required.

Ethical approval: As identity of the patient is not disclosed; ethical committee approval is not required.

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