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The vascular bridge: unravelling a tumor across skin and bone

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INTRODUCTION

- Cutaneous vascular lesions can pose diagnostic dilemma due to overlapping clinical appearances. Herein, we present a case of multiple, tender nodules on the hand in an adult patient highlighting the role of clinicopathological assessment in rare vascular presentations.

DISCUSSION

- Spindle cell hemangioma, previously termed as spindle cell hemangioendothelioma, is rare benign reactive vascular proliferation with cutaneous origin but rarely arising from bone or viscera. Only five cases of osseous involvement have been reported, none with associated vascular nodules as in our case. SCH harbours unique isocitrate dehydrogenase mutations and likely represents a lymphatic proliferation (Prox-1, podoplanin). Treatment modalities vary, with wide local excision showing recurrence rates of up to 58% in multifocal disease.

CONCLUSION

- This case highlights a rare presentation with concurrent cutaneous and bone involvement, expanding the recognized clinical spectrum.. A thorough diagnostic approach integrating clinical assessment, histopathology, immunohistochemistry and imaging aids in distinguishing it from malignant vascular neoplasms ensuring appropriate treatment.

REFERENCES

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2. Tosios KI, Gouveris I, Sklavounou A, Koutlas IG. Spindle cell hemangioma (hemangioendothelioma) of the head and neck: Case report of an unusual (or underdiagnosed) tumor. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2008;105:216-21.

CASE REPORT

- A woman in her early 40s presented with a 5 month history of multiple painful reddish nodules and swelling on right hand with no history of any systemic comorbidities. Clinical examination showed multiple erythematous vascular nodules on dorsum of right hand, measuring 0.5-1cm with mild tenderness and underlying irregular swelling (Figure a). Radiological imaging (NCCT) revealed a lytic lesion involving the diaphysis and metaphysis of fifth metacarpal. Punch biopsy of the skin nodule and resection of the bony lesion was performed with the differentials of angiolymphoid hyperplasia with eosinophilia, cavernous hemangioma, Kaposiform hemangioendothelioma, and Kaposi's sarcoma.
- Histopathology of cutaneous and osseous specimens showed a well-demarcated dermal vascular proliferation with plump endothelial cells protruding into the lumina, some with cytoplasmic vacuolization. Spindle cell aggregates were present adjacent to dilated slit-like vessels without nuclear atypia (Figure b, c). Endothelial cells were CD31/CD34 positive (Figure d), while spindle cells were CD31/CD34 negative and vimentin positive.
- These clinicopathological findings with lytic bone lesions, supported a diagnosis of spindle cell hemangioma. The absence of enchondromas excluded Maffucci syndrome. Following tumor excision, cutaneou and bone lesions resolved completely at the 6-week follow-up and the patient remains well after 1 year of treatment.

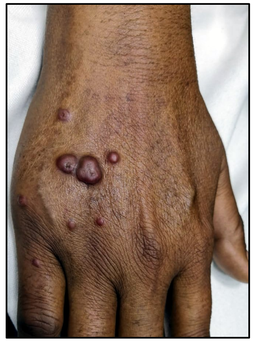


Figure a

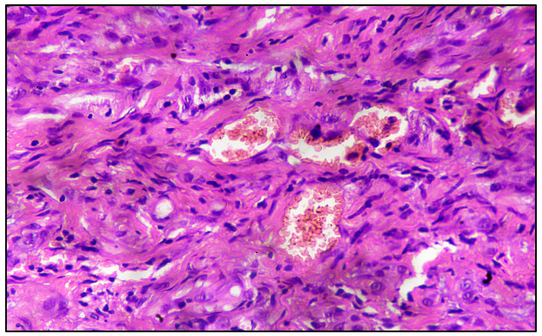
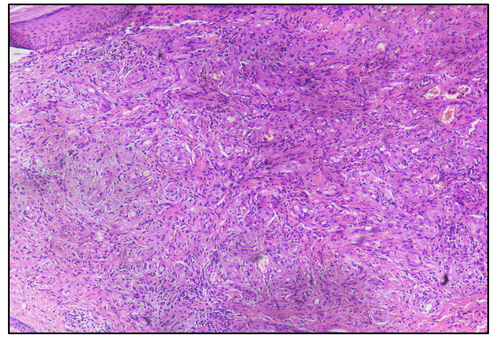


Figure b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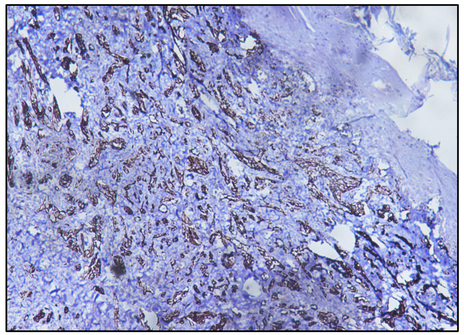
Figure d