SPINDLE CELL LIPOMA: A RARE CASE REPORT ON THE HALLUX

Dermatology

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Background

- Spindle cell lipoma (SCL) is a rare lipomatous neoplasm of subcutaneous tissue that usually presents in older males on the posterior neck, shoulders, or back.
- We describe a young man with SCL on the hallux of the left foot to highlight the possibility of presentation in young patients and at atypical sites.

Objectives

- To discuss the clinical, radiologic, and histopathologic features of spindle cell lipoma.
- To highlight the importance of considering SCL as a differential diagnosis for patients who have a well-defined subcutaneous mass regardless of age and location of presentation.

Figure 1: Axial T1 weighted magnetic resonance imaging demonstrated non-enhancing fat signal intensity nodules within the medial and plantar aspects of the left hallux at the level of the IP joint as indicated by the red arrow.

Case Synopsis

- A 24-year-old man was referred to the VA podiatry clinic regarding a freely mobile round mass on the medial and plantar aspects of the left hallux.
- Physical exam findings supported an initial differential diagnosis of a ganglion cyst or a lipoma.
- MRI obtained non-enhancing fat signal intensity nodules within the medial and plantar aspects of the big toe at the level of the interphalangeal (IP) joint, consistent with lipoma.
- Histopathology of the excised mass demonstrated a well-circumscribed fibroadipose nodule with characteristics of a spindle cell lipoma.
- Patient experienced an uneventful recovery after excision of the mass.
- The patient notably stated that his mother recently had SCL in the thigh, indicating the possibility of a familial association.

Figure 1: Gross image of the excised mass, measuring about 2x2cm.

Case Discussion

- SCLs are usually well circumscribed, occasionally encapsulated, painless, firm nodules that are mostly solitary and occur in subcutaneous tissue.
- SCLs are composed of a mixture of mature adipocytes, bland spindle cells arranged in parallel, and rope-like collagen fibers. A myxoid stroma with mast cells is often seen.
- The exact pathogenesis has yet to be explained. Although mostly occurring in sporadic fashion, familial cases of SCL and individuals with multiple SCLs have been reported.

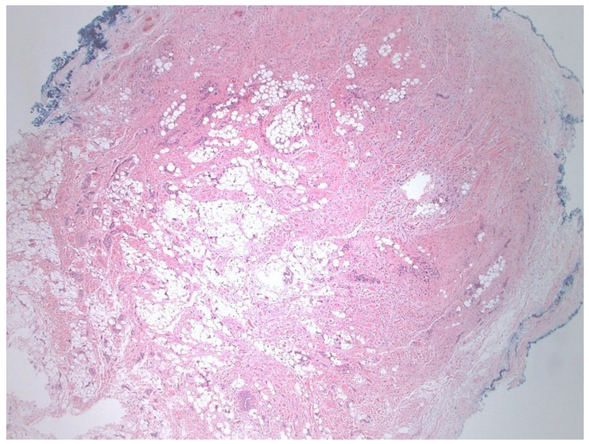

Figure 3: The excised mass was a well-circumscribed, non-encapsulated nodule. Adipocytes ranged in density from sheet-like to widely scattered (H&E, 20×).

Conclusions

- Although uncommon, SCL of the foot should be considered regardless of age when a subcutaneous mass with circumscribed borders is seen.
- Physical exam, radiography, and histological studies may be used to characterize the mass.
- Familial history of spindle cell lipoma, when present, further supports a diagnosis.
- Our case highlights the importance of radiographic and histopathologic correlation when encountering soft tissue lesions of the foot.

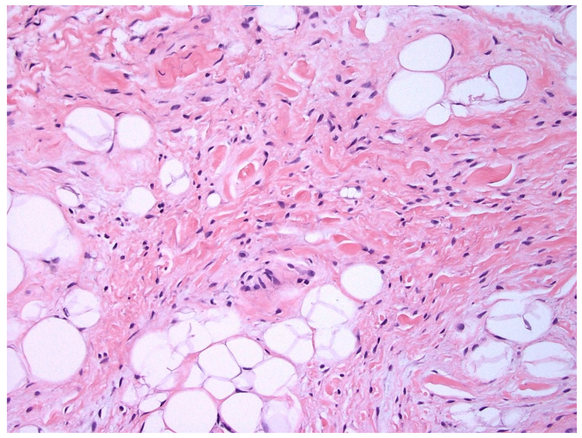

Figure 4: Intermixed with the adipocytes were bland spindle cells and rare mast cells, interposed between thickened collagen bundles (H&E, 200×).

References:

Thompson LD. Spindle-cell lipoma. *Ear Nose Throat J*. 2009;88:992-3. [PMID: 19623524].

Fanburg-Smith JC, Devaney KO, Miettinen M, Weiss SW. Multiple spindle cell lipomas: a report of 7 familial and 11 nonfamilial cases. *Am J Surg Pathol*. 1998;22:40-8. [PMID: 9422314].

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