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CASE REPORT

Synchronous Localized Tenosynovial Giant Cell Tumor of the Finger and Penile Schwannoma in a 19-Year-Old Male: A Rare Dual Presentation

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Abstract: Localized tenosynovial giant cell tumors (TGCTs) and penile schwannomas are both rare benign soft-tissue neoplasms that typically present in isolation. We report an exceptional case of a 19-year-old man presenting with concurrently developing lesions—a firm, mobile mass on the right middle finger and a similar swelling on the glans penis—both present for one year. Histopathological evaluation revealed localized TGCT with hyalinizing fibrosis and giant cells in the finger lesion, and a benign schwannoma with classic Antoni A/B areas and Verocay bodies in the penile lesion. Both masses were excised successfully with preservation of function and no recurrence at follow-up. We review the clinicopathologic and management considerations for each entity, highlighting the importance of histology for accurate diagnosis in such rare presentations.

Keywords: Tenosynovial Giant Cell Tumor (TGCT), Penile Schwannoma, Soft Tissue Neoplasm, Histopathology, Case Report

INTRODUCTION

Tenosynovial Giant Cell Tumor (TGCT), also known as giant cell tumor of the tendon sheath, is the second most common soft-tissue tumor of the hand—after ganglion cysts—and predominantly arises in patients aged 30–50 years. The localized form is a benign proliferation of mononuclear synovial-like cells, multinucleated osteoclast-like giant cells, and xanthoma cells, frequently involving fingers or wrists.

Hyalinizing fibrous variants exist, adding diagnostic complexity.

Schwannomas are benign, slow-growing nerve-sheath tumors composed of Schwann cells, commonly encapsulated and removable with minimal morbidity. Penile schwannomas are exceedingly rare, with fewer than 50 cases reported; they typically present as painless, mobile nodules on the penile shaft or glans. Histologically, schwannomas show alternating Antoni A and B zones and Verocay bodies, confirmed with S-100 positivity.

Synchronous occurrence of TGCT and penile schwannoma in the same patient has, to our knowledge, never been documented. We present a 19-year-old male with both lesions, demonstrating the importance of individualized diagnosis and treatment.

CASE PRESENTATION:

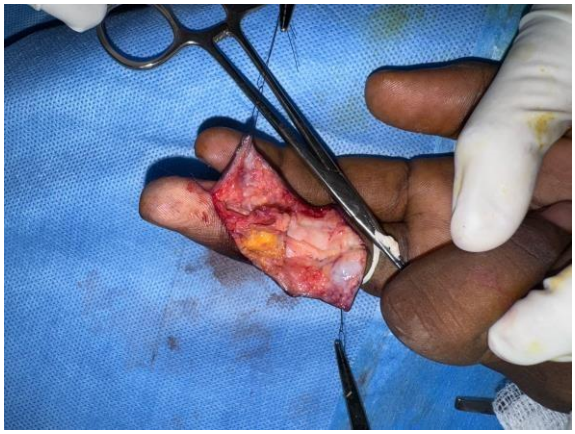
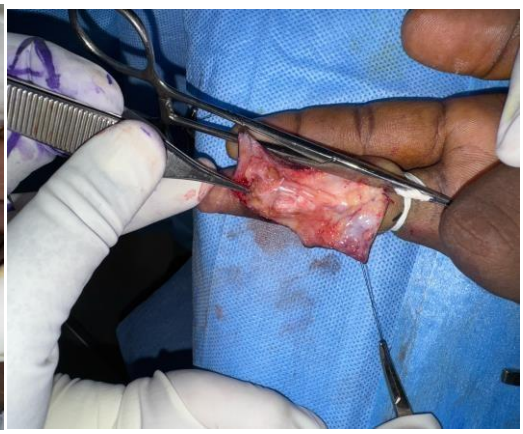
A 19-year-old male presented to surgical outpatient service with two swellings present for one year: a gradually enlarging firm mass on the right middle finger and a similar lesion on the glans penis. The finger lesion caused intermittent mild pricking pain; the penile swelling was asymptomatic. No history of trauma, comorbidities, or prior surgeries was noted.

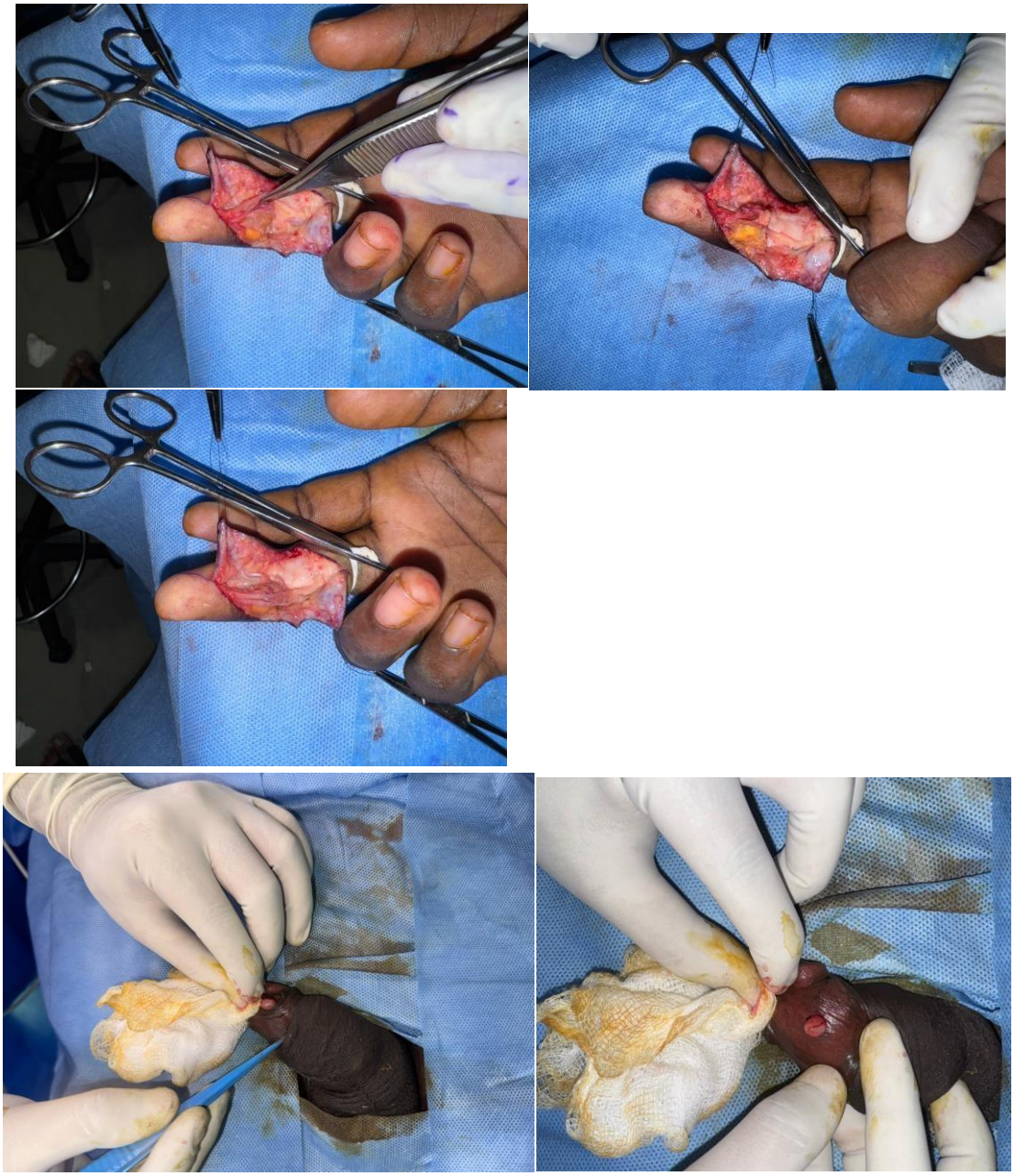
Examination revealed a 2 × 1 cm ovoid, firm, mobile swelling on the palmar aspect of the middle phalanx of the right middle finger, with surrounding induration but intact skin. The penile lesion measured approximately 1.5 × 1 cm, firm, mobile, ovoid, non-tender, with normal overlying skin and retractable foreskin; scrotum and testes were normal, with no lymphadenopathy. Routine labs were unremarkable.

Imaging: Finger ultrasound showed a 0.6 cc heterogeneous echogenic collection with inflammatory changes in the subcutaneous plane and suspected deeper extension.

Surgical Management: Under anesthesia, a Bruner's incision exposed the finger lesion. It was adherent to the A4 pulley and ulnar neurovascular bundle but dissected free without compromise of nerve or tendon. The penile swelling was excised en bloc from the undersurface of the glans. Both specimens were sent for histopathology. Postoperatively, the patient had full finger mobility, intact sensation, and unremarkable healing.





Histopathology:
Finger lesion: Fibrofatty tissue with well-circumscribed nodular lesion displaying extensive hyalinized fibrosis, sheets of mononuclear cells, occasional multinucleated giant cells, siderophages, and focal infarct-type necrosis; no mitoses identified— consistent with localized TGCT with extensive hyalinization.

Penile lesion: A circumscribed spindle-cell neoplasm in sheets, fascicles, and palisades, forming Verocay bodies, areas of hyalinization, and thick-walled hyalinized vessels; absence of mitoses or necrosis—favoring benign schwannoma.

DISCUSSION:

Localized TGCT of the finger: Most commonly affects adults aged 30–50, but pediatric and teenage cases are reported albeit rarely. Histology typically reveals mononuclear synoviocyte-like cells, giant cells, and hemosiderin-laden macrophages. Hyalinized variants, though uncommon, may lack classic features, making diagnosis challenging. Standard treatment is marginal surgical excision with preservation of adjacent structures; recurrence rates vary depending on completeness of excision. Our surgical approach preserved the neurovascular bundle and pulley, achieving excellent functional outcome.

Penile schwannoma: Extremely rare, slow-growing benign tumor of Schwann cells; most appear as solitary, painless masses on the penile shaft or glans. Histologic features include Antoni A/B areas and Verocay bodies; immunohistochemistry with S-100 confirms Schwann origin. Complete excision generally results in cure with

negligible risk of recurrence or malignant transformation.

Dual presentation—implications: While both tumors are benign and managed surgically, their synchronous presentation in a non-syndromic, young male is unprecedented. No underlying syndrome (e.g., neurofibromatosis) was evident. Each lesion's behavior was consistent with established patterns: slow growth, benign pathology, and excellent postoperative recovery. Both were excised in toto; functional and cosmetic outcomes were favorable.

Literature context: Localized TGCT can rarely exhibit atypical histology; for instance, hyalinizing forms may lack giant cells. Penile schwannomas remain sparsely reported—most cases documenting excision with no recurrence. Our case contributes valuable insight into solitary hybrid presentations of soft-tissue tumors across disparate anatomical sites.

Follow-up and prognosis: Close clinical follow-up is prudent to monitor for TGCT recurrence, given reported rates as high as 10–45% in some series. The schwannoma carries a very low risk of recurrence following complete excision. No adjuvant therapy is indicated for either lesion.

CONCLUSION:

This report highlights a unique synchronous presentation of a localized tenosynovial giant cell tumor in the finger and a penile schwannoma in a 19-year-old male. Both tumors, though rare individually, were successfully managed with conservative surgery, preserving function and confirming benign pathology. Histopathology remains essential for accurate tumor characterization, especially in atypical cases. The excellent postoperative outcome underscores the effectiveness of tailored surgical management for rare benign soft-tissue tumors. Continued surveillance is advised for early detection of recurrence, especially for TGCT. This case adds to the literature by demonstrating that even anatomically and pathogenetically distinct benign tumors may co-occur in the same individual, warranting a thorough, case-by-case approach.

REFERENCES

1. Verheyden JR. Giant cell tumor of the tendon sheath. eMedicine. (Overview of
2. TGCT) Medscape
3. Jaiswal A, Ambade R. Tenosynovial giant cell tumor of finger: case report. Pan Afr
4. Med J. 2023. PubMed+1
5. Tan-Garcia A, et al. A hyalinised TGCT with absence of giant cells. Pathology.
6. 2023. PubMed
7. Ansari Review: Penile schwannoma management. J Pathol/Manag Review.
8. 2015. ScienceDirect
9. JSSTD case of penile schwannoma. Journal. 2024. jsstd.org
10. Multiple penile schwannomas case. Urol International. 2023. Karger
11. Wikipedia contributors. Tenosynovial giant cell tumor. Wikipedia,
12. 2025. Wikipedia
13. Wikipedia contributors. Schwannoma. Wikipedia, 2025. Wikipedia