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Sclerotic Glomus Tumor of Little Finger Pulp - A Diagnostic Dilemma

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Abstract: ***Glomus tumors are benign, vascular neoplasms arising from the glomus body. Although they can develop in any part of the body, they commonly occur in the upper extremities, most frequently subungual areas.*** [1] ***Their occurrence in pulp of the finger is are and account for approximately 10% of these tumors.*** [2] ***Here we report a 38 year old male who presented with painful tiny nodule measuring 4mm in diameter in the pulp of right little finger. He also gave history of intense pain, cold sensitivity, and severe tenderness to palpation of the pulp. On Histopathological and immunohistochemistry a diagnosis of Sclerotic glomus tumor was made.***

1. Introduction

Glomus tumors are benign, vascular neoplasms arising from the glomus body. Although they can develop in any part of the body, they commonly occur in the upper extremities, most frequently subungual areas. [1] Their occurrence in pulp of the finger is are and account for approximately 10% of these tumors. [2]

Unlike conventional glomus tumors or glomangiomas that have a loose fibrous stroma with variable hyaline and myxoid changes, the present case had a diffuse, hyalinized, sclerotic stroma. Sclerotic variant seems to be rare and has not been described in the major textbooks of dermatopathology or soft tissue tumors. Extensive literature search revealed only one reported case of sclerotic glomus tumor so far. [4] We report second case of sclerotic glomus tumor in a rare location.

2. Case Report

38 year old male who presented with painful tiny nodule measuring 4mm in diameter in the pulp of right little finger. He also gave history of intense pain, cold sensitivity, and severe tenderness to palpation of the pulp. The differential diagnosis at the time of examination included glomus tumor, schwannoma, mucoid cyst, and neurofibroma. The nodule was excised and sent to us for histopathological examination.

Sections from the specimen showed a well - circumscribed monomorphous proliferation of cords and strands of small uniform round to polygonal cells with central, round to oval, punched - out bland nuclei in a fairly dense hyalinized stroma composed of interwoven coarse fascicles of thickened and homogenized eosinophilic collagen bundles (Fig.1). Occasional slit like vessels with a cuff of tumor cells are also seen. (Fig.2). sclerotic Glomus tumor. Masson trichrome stain was done to highlight the sclerotic stroma. Immunohistochemically the tumor cells were positive for actin and negative for Pancytokeratin, CD34, and Melan - A. The diagnosis of Sclerotic glomus tumor was rendered.

3. Discussion

Typically the glomus tumors contain monomorphous epithelioid cells and vascular structures. The stroma is usually rather inconspicuous in most cases. The sclerotic pattern of the stroma described in the present case was very different from the classical cases of glomus tumor. The less classic location in the pulp of little finger and densely sclerotic stroma posed diagnostic dilemma. Lesions considered in the differential diagnosis were morpheiform basal cell carcinoma, hidradenoma/acrospiroma, and melanoma. Serial sections revealed a focus of slit like vessels surrounded by glomus cells which were positive for actin. Thus a diagnosis of Sclerotic glomus tumor was made.

First case of Sclerotic glomus tumor reported by Vigovich FA et al [3] was also located in an unusual location which was right ear. Our case is also located in pulp of little finger which is unusual location for glomus tumor. [2, 6]

Complete surgical excision of the tumor is the only effective treatment. [4]For subcutaneous or pulpal tumors, the approach is direct, respecting the principles of cutaneous incisions and avoiding nerve fiber pathways. [5] In our case, the direct approach was sufficient for complete excision because the lesion was located in the pulp. After complete tumor removal, was rapid relief of pain and the appearance of finger became normal in 3 months

In conclusion, we report a rare variant of glomus tumor in an unusual location. Though rare, more cases need to be documented to include sclerotic Glomus tumor as a variant of gloms tumor in text books.

References

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Legends

Figure 1: Photomicrograph showing cords and strands of glomus cells in a fairly dense hyalinized stroma composed of interwoven coarse fascicles of thickened and homogenized eosinophilic collagen bundles (H&E, 20x)
Figure 2: Focal slit like vessels with a cuff of tumor cells (H&E, 20x)
Figure 3: Tumor cells showing actin positivity (IHC, 20x)

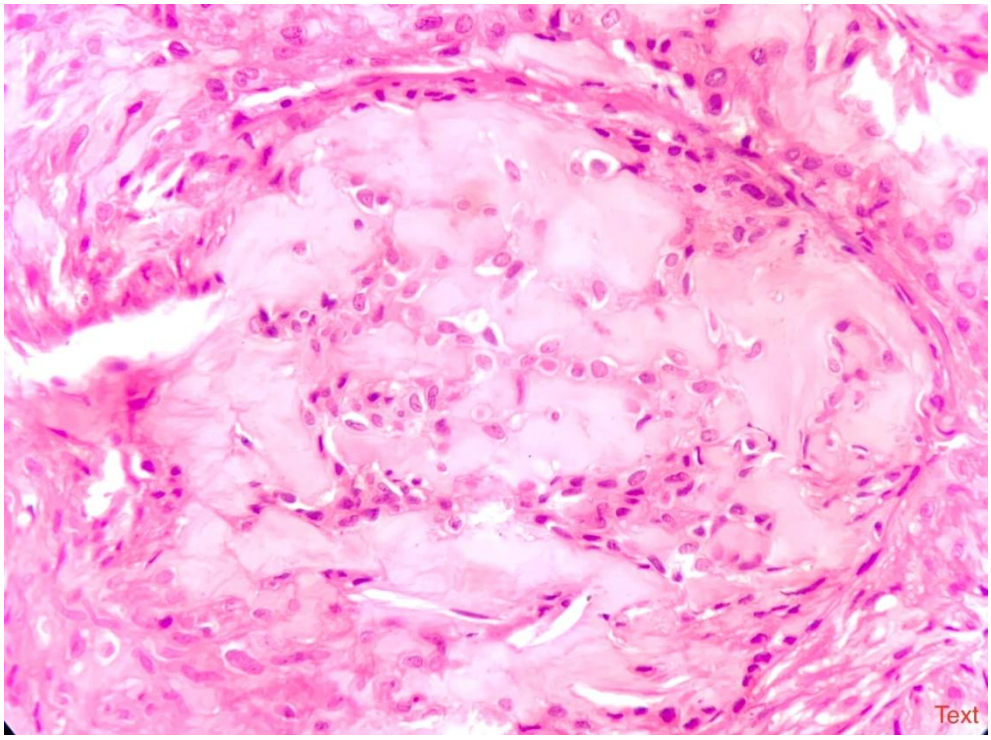

Figure 1

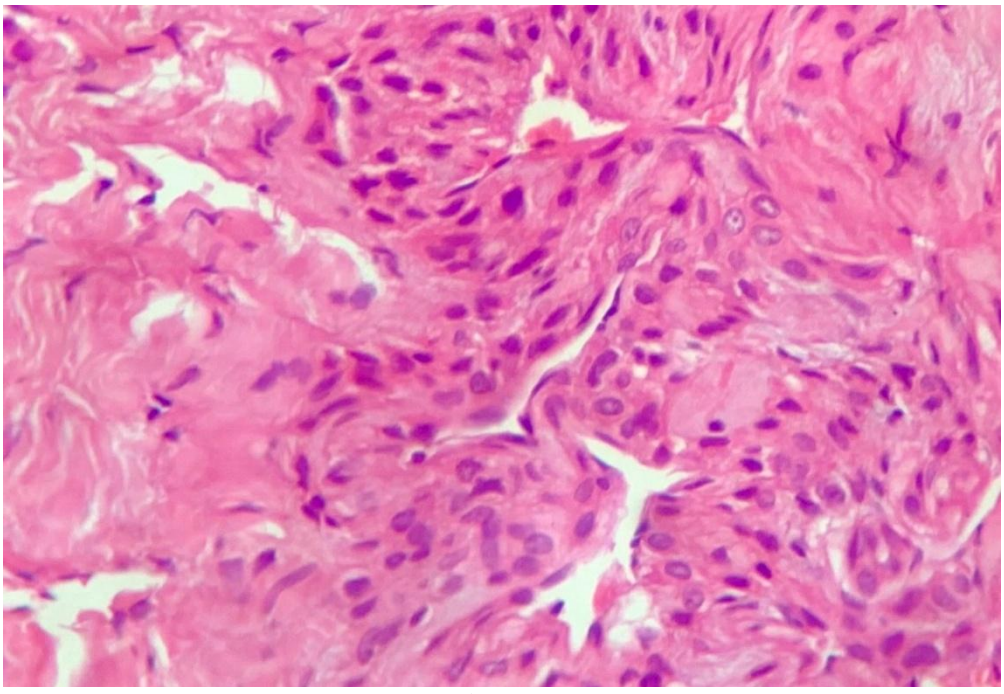

Figure 2

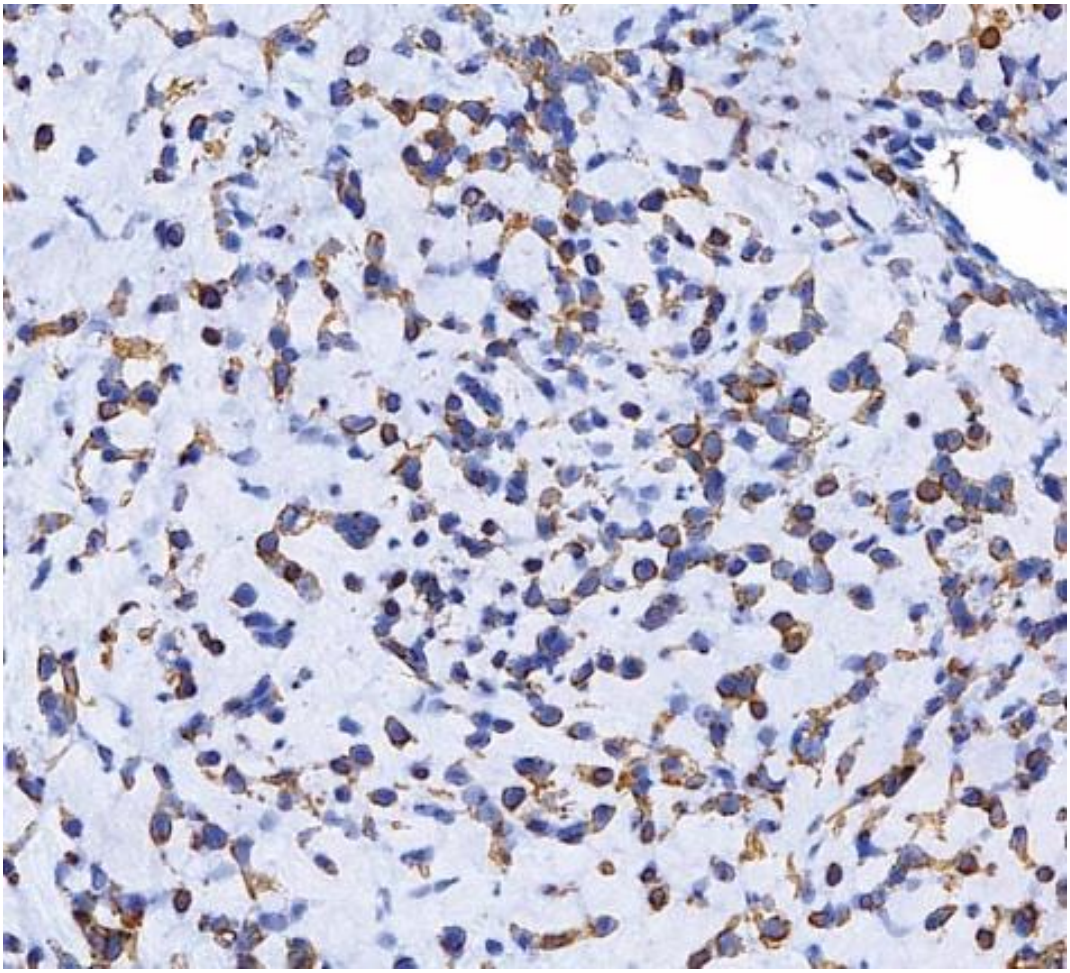

Figure 3