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Case Report

Case Report: Cutaneous Myopericytoma on the Elbow August 2024

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Abstract

Myopericytoma (MPC) is a rare benign neoplasm. It is presented clinically as painless swelling or nodule usually in middle aged adults with a predilection for the limbs, particularly the distal lower limb. Lesions are usually less than 2 cm in diameter, long- standing and asymptomatic. Globally, less than 200 cases have been reported in the literature. Microscopically, the tumor composed of oval to spindle shaped cells with a distinctive concentric peri vascular growth. Cellular atypia and mitotic figures are absent. Immunohistochemistry usually positive for smooth muscle actin (SMA) and negative for CD34 and Desmin. The case in this report represent a long-lasting swelling on the right elbow that turns to be a myopericytoma based on clinical, histopathological and Immunohistochemical analysis.

Keywords: Myopericytoma; Elbow; Cutaneous.

Introduction

Myopericytoma term has been used since 1998 by Granter and his colleagues describing a soft tissue benign tumor composed of spindle shaped cells of perivascular origin. The tumor develops slowly as a painless growing mass of dermal or subcutaneous tissue in the distal extremities with male predominance in most cases to date. Only few cases have been reported in the head and neck. Other soft tissue tumors can mimic myopericytoma histologically such as myofibroma, endometrial stromal sarcoma, infantile hemangiopericytoma, leiomyosarcoma, angioleiomyoma and glomus tumor. Therefore, immunohistochemistry is fundamental to categories theses tumors based on staining vascular pattern. Myopericytoma regarded as a benign tumor with only few cases reported malignant. Regarding management, there is few data on the best approach for these tumors but surgical excision is the preferred method. This paper represents a case of 42 years old male presented to Jaber hospital in Kuwait with right elbow swelling that turns to be myopericytoma.

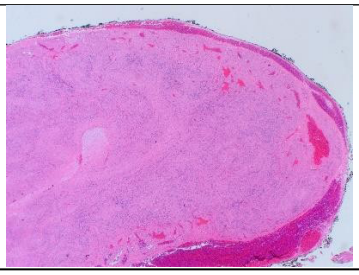
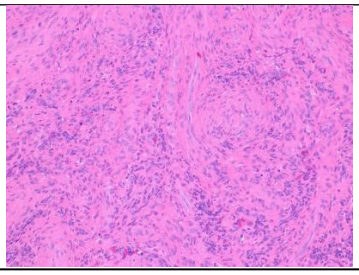
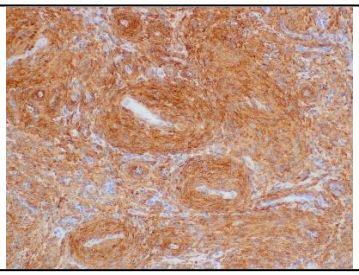
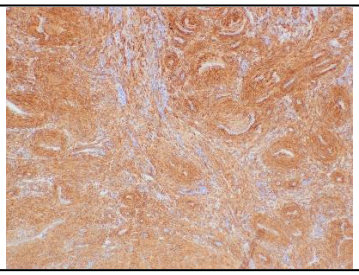
Case

A 42 years old male presented to orthopedic department with a right elbow mass on 20th June 2024. It was a painless mass measuring 1.3 * 0.6 cm in diameter for 3 years duration. There was no change in size of the mass over time. On physical examination, there was no erythema or discharge and the mass was mobile and tender. Also, there were no systematic signs of infection such as fever. The patient was sent for ultrasound to guide management. Ultrasound showed a well-defined subcutaneous hypoechoic soft tissue mass measuring 1.3 * 0.6 cm. It showed internal arterial (low resistance) and venous flow inside the mass. There were no internal calcifications or cystic degenerations. No surrounding inflammatory changes, no deep extensions and normal regional muscles. Most likely differential diagnosis was subcutaneous soft tissue heamangioma. Excision of the mass was done and the specimen was sent for histopathological correlation.

On gross examination of the specimen a piece of tan brown tissue measuring 1.4 * 1 * 0.3cm. Outer surface was painted black and serially sliced into five pieces. There were no focal lesions within the sliced mass, cut surface was solid and reddish brown.

Microscopically, a well circumscribed nodular lesion with characteristic perivascular concentric growth of spindle shaped tumor cells with abundant cytoplasm, round nuclei and evenly distributed chromatin. Mitotic figures, tumor necrosis and vascular invasion were not identified. Towards the periphery of the lesion, there were variable sized dilated blood vessels. Some stromal fibrosis was seen in focal areas.

Immunohistochemical study has confirmed a vascular stromal tumor (Myopericytoma) of subcutaneous right elbow swelling. The myoid cells showed positive expression by smooth muscle actin (SMA) and h-caldesmon, negative for CD 34 and patchy expression by desmin. Clinical and radiological information correlated with histopathological and immunohistochemical analysis has led to the diagnosis of a benign rare tumor (Myopericytoma) of right elbow swelling [1-7].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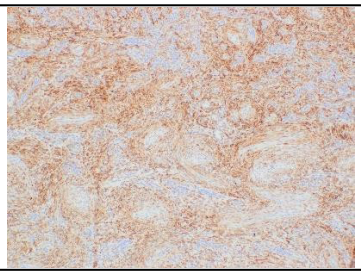	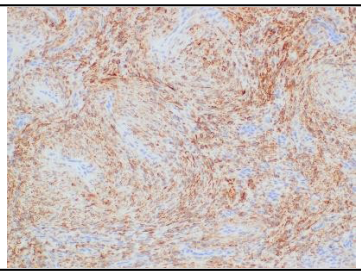
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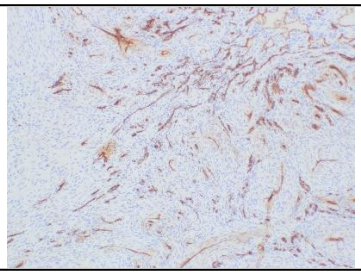	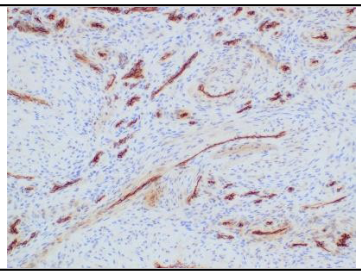
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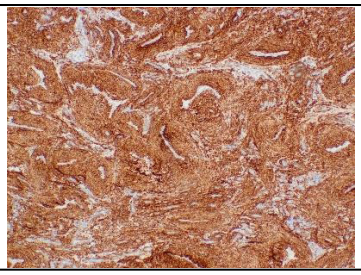	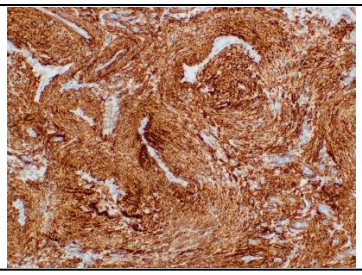
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Conclusion

In conclusion, surgical excision and histopathological examination is fundamental in the management of a subcutaneous swelling to rule out a tumor with an aggressive behaviour. Myopericytoma is a benign tumor of perivascular origin in which local recurrence is rare and simple surgical excision is an adequate management approach.

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