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(CASE REPORT)

Angiomyxolipoma: A case report

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Abstract

Although cases of lipoma are common, angiomyxolipoma is a rather rare variant composed of three basic components: myxoid stroma, mature adipose tissue and many blood vessels.

We reported the case of a 71-year-old man who was found to have a mass at knee level, subsequently surgically removed, which was found to be compatible with angiomyxolipoma.

Keywords: Angiomyxolipoma; Myxoid stroma; Mature adipose tissue; Lipoma

1. Introduction

Classical lipomas represent 80% of all lipomas, while 20% of cases are represented by angiomyolipoma, angiolipoma and myolipoma [1]. Angiomyxolipoma (vascular myxolipoma) is a very rare subtype of lipoma that was first described by Mai et al in 1996 [2]; it's a well-circumscribed tumor characterized by the presence of mature adipose tissue, myxoid stroma, and abundant blood vessels.

Generally, angiomyxolipomas are most common in the subcutaneous tissue, although they have also been described in the oral, renal and knee areas.

To date, only 23 cases of angiomyxolipoma are found in the literature.

Here a case of a 71-year-old man with angiomyxolipoma of the knee is reported.

2. Case report

During a clinical examination, a 71-year-old man was found to have a neoformation in the knee whose consistency suggested that it was a lipoma. A surgical excision of the lesion was performed and subsequently sent to the pathological anatomy laboratory in order to carry out further analysis, establishing its nature.

The surgical sample consisted of two yellowish-grey fragments, the larger of which was 2 x 1.5 cm, with a soft and elastic consistency.

Hematoxylin and eosin slides taken from formalin-fixed, paraffin embedded samples were stained in order to observe cell morphology that was found to be compatible with angiomyxolipoma [figure 1].

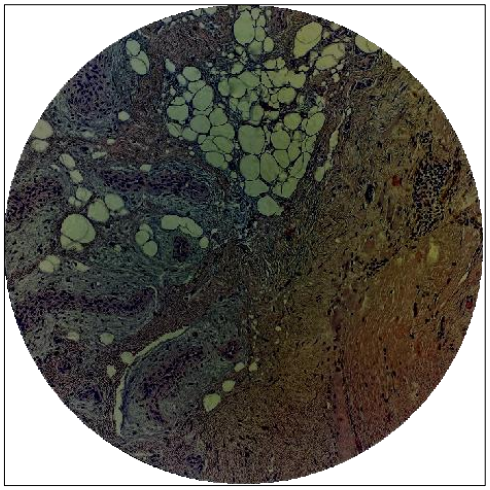

Figure 1 Hematoxylin and eosin section of the angiomyxolipoma

Subsequently, an immunohistochemical investigation was performed with the aim of making a differential diagnosis of angiomyxolipoma compared to other subtypes of lipoma, such as angiolipoma and myolipoma. Immunohistochemical profile was detected by Roche CD34 and CD31 monoclonal antibodies; the cytoplasm of the spindle cells of the myxoid areas expressed positivity for CD34, while all vessels showed positivity for both CD34 and CD31, confirming the diagnosis of angiomyxolipoma [figure 2].

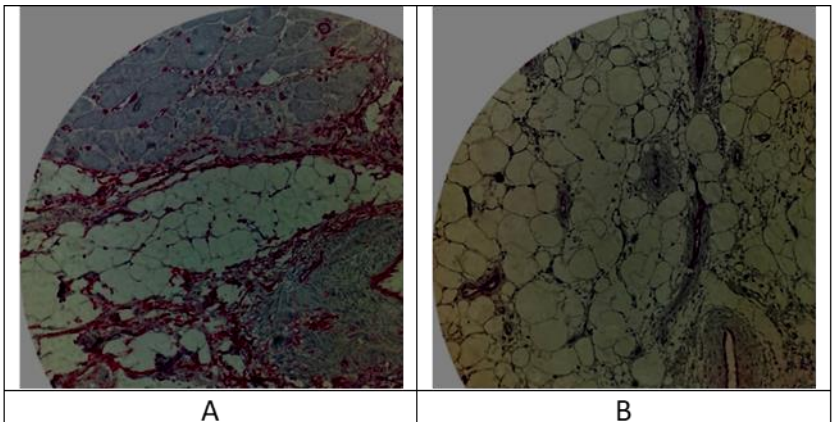

Figure 2 Sections stained with immunohistochemical techniques A) CD34 positive in the cytoplasm of spindle cells of the myxoid areas and in vessels. B) CD31 positive only in vessels

3. Discussion

Lipomas are very common mesenchymal lesions in adults and rare in children; they consist mainly of mature adipose tissue. They can be often found in obesity, diabetes, endocrine disorders and trauma.

Angiomyxolipoma, a rare variant of lipoma, presents myxoid stroma and abundant small and medium-sized vascular channels, in addition to a portion of mature adipose tissue. Lipoblasts haven't been detected. This pathological entity was first described in the spermatic cord [2, 3]; other cases have been found in the extremities, thigh, knee and subungual region [2, 4, 5, 6, 7, 8]. It usually presents as a single, well-demarcated, non-encapsulated superficial mass [8,9]; this lesion may be associated with pain of its own due to increased vascularity.

Immunohistochemistry and histopathology are sufficient to ensure a correct diagnosis; the positivity of the spindle cells of the myxoid areas for CD34 and in the vascular endothelium for CD34 and CD31 are essential in correct differential diagnosis [10,6]. Moreover, other histologic subtypes of adipocitic benign tumors lack a component that is always present in angiomyxolipoma. The myolipoma does not have a prominent vascular component; angiolipoma and angiomyolipoma do not have myxoid substance [1,7].

4. Conclusion

In conclusion, angiomyxolipoma is a rare benign tumor from adipose origin characterized by the presence of three key elements that distinguish it from other lipomatous histotypes: myxoid stroma, high blood vessel proliferation, and mature adipose tissue. It needs being attention to the various components of the lesion for a good differential diagnosis with similar malignant entities from adipose tissue origin.

Compliance with ethical standards

Acknowledgments

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Disclosure of conflict of interest

Authors declare no conflict of interest.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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