INFILTRATIVE ANGIOLIPOMA OF THE NECK

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Introduction

Lipomas are the most common mesenchymal tumors of the body. They can occur in any soft tissue ranging from subcutaneous fat to the parosteal areas adjacent to bone. They are usually asymptomatic masses easily diagnosed on radiological imaging[1]. Angiolipoma is a variant of lipoma with proliferation of its vascular component. These tumors occur on the trunk and extremities of young adults with the forearm being the most common site of involvement. Documented sites of occurrence in the head and neck region include cheek, palate, neck, jaw, nose, eyelid, parotid, tongue, paranasal sinuses and parapharynx. Only 4 cases have been described in the neck, with 75% of these being infiltrative[2]. We would like to present the fifth case of infiltrative angiolipoma of the neck.

Case presentation

A 23y old male patient, previously healthy, presented with a four month history of a slowly growing, painless neck mass that was not associated with skin changes, fever, recent infection or trauma. No history of contact with patients with tuberculosis. Physical examination revealed a well circumscribed soft left postero-lateral neck mass, 5 × 5 cm, non tender and non pulsatile. Patient had normal muscle power in his upper extremities and normal pulses. A fine needle aspiration revealed an acellular specimen. Magnetic resonance imaging of the head and neck showed a heterogeneous 5 × 4 × 4 cm, well-circumscribed mass with a prominent vascular component, underneath the trapezius and longus colli muscles. The mass enhanced on T1 and T2 weighted images. The patient underwent resection of the posterior neck mass through a cervical approach incision. Intra-operatively the mass was found to be infiltrating the adjacent muscles. Histopathologic examination revealed proliferation of small mostly capillary sized vessels and adipose tissue between muscle fibers In a pseudo-infiltrative type (Fig. 1). The diagnosis was consistent with angiolipoma of the neck the infiltrative type.

Discussion

Lipomas occur in regions such as back and shoulders, with the head and neck region being rarely the site of origin. Histologically, they are classified into five categories; 1) lipoma; 2) hybernoma; 3) heterotopic lipoma; 4) lipomatoses syndrome; and 5) histologic variants of lipoma

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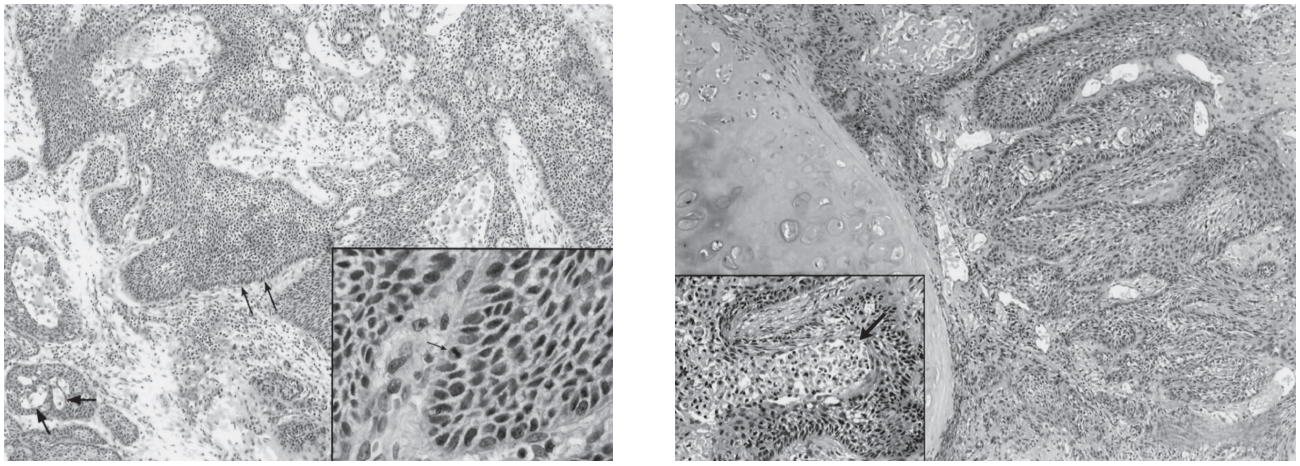
Fig. 1
H&E staining (X100 magnification) shows proliferation of small mostly capillary sized vessels and adipose tissue between muscle fibers in a pseudo-infiltrative type. The vessels have plump nuclei with well formed lumina. Mitotic figures are not seen. There is no atypia. Findings are constant with angiolipoma



such as angiolipoma. Angiolipomas constitute 6%-17% of all lipomas with only 20 cases being reported in the literature. They are suspected whenever the lesion becomes painful or tender and at times leading to muscular pain and or neural deficits. This is more common when the tumor is infiltrative and lacks an identifiable capsule, as in our case[3,4]. Histopathologic characteristics of angiolipomas include 1) gross evidence of tumor formation; 2) microscopic evidence of more than 50% of mature lipocytes in the tumor and 3) microscopic evidence of angiomatous proliferation. These were the findings in our case. Because of their extensive vascular component and their tendency to locally recur, they have often been classified under benign vascular lesions such as intramuscular hemangiomas. The differential diagnosis includes hemangioma, lymphangioma, kaposi's sarcoma and angiosarcoma. Liposarcomas can be differentiated by the presence of embryonal adipose tissue, pleomorphism, increased number of mitosis and metastasis[1,2]. The non fatty vascular component of angiolipomas makes these tumors radiologically distinct with Magnetic resonance imaging (MRI) being the most sensitive imaging technique. These tumors tend to show high signal intensity on T1-weighted sequences and T2-weighted fast spin echo-MRI sequences. Analyzing the nonfatty regions of these atypical lipomas invariably provides the clue for distinguishing them from well differentiated liposarcomas. These later tend to have thick nodular septa that enhance variably on contrast enhancement images. These findings were not present in our case. MRI is also used for the assessment of the neighboring structures and the extent of infiltration[3-5]. Treatment consists of complete surgical excision. In the infiltrative type, wider resection that includes the adjacent involved soft tissues is recommended in view of the high incidence of local recurrence. Adjuvant radiation therapy may be recommended in cases of incomplete resection.

References

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