Case report:

Intramuscular Hemangiolipoma of Right Masseter

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Abstract

Hemangiolipoma originated in muscle is rarely reported especially in otorhinolaryngology field. The presentations include swelling with discoloration of the surrounding skin. Complete surgical excision is the suggested treatment in both type infiltrating and non-infiltrating angioliipoma. We describe a case of angioliipoma in a child whereby the diagnosis was suspected after magnetic resonance imaging with gadolinium.

Keywords: Angioliipoma, Masseter Muscle, Magnetic Resonance Imaging

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Introduction

Lipoma is a common soft tissue tumour but they are relatively rare in the head and neck region¹. Angioliipoma was initially described by Howard and Helwig in 1960² whereby it consists of non-infiltrating form and another rare, infiltrating form involving skeletal muscle and deeper soft tissue³. There are few reported cases involving head and neck region including parotid⁴ while more severe cases where it cause infiltration to the spinal cord causing myelopathy⁵.

Case report

A 4-year-old Malay girl with underlying bronchial asthma presented with right parotid swelling for 3 months duration. There was no associated fever, pain or trauma prior to the onset. Her parent denied noticeable swelling or skin lesion at birth or increasing in size in relation with food intake. On examination, patient was alert and conscious. There was clinically a right parotid swelling,

measuring 5 cm x 4 cm, which was firm and not tender, with well-defined border. There were no skin changes and no lymph nodes palpable. Intraoral examination reveals no bleeding spot, or clot seen at the Stenson opening and no medialization of lateral pharyngeal wall.

Ultrasonography of parotid done showed fairly well-defined mixed hypo and hyperechoic mass measuring 2.9 cm x 1.8 cm x 2.8 cm. Subsequently magnetic resonance imaging (MRI) was done (Figure 1) showing a high intensity well-lobulated mass with feeding vessels, within the right masseter muscle. The mass infiltrated adjacent mandible to temporalis muscle and abutting the lateral pterygoid muscle. Posteriorly, the mass laid close and slightly indenting on parotid gland. However the parotid gland is normal and no obvious infiltration in the parotid gland noted. Currently she was planned for resection after embolization.

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Figure 1a

Figure 1b

Figure 1c

Figure 2a: Arrow show the right cheek swelling.

Figure 2b: Arrow shows the right cheek swelling.

Discussion:

Angiolipomas are benign mesenchymal tumours which can occur anywhere in the body and seldomly involve the head and neck region. This subset of angiolipoma comprise of about 5-17% of all lipoma type¹. Histopathologically, it can be divided into circumscribed angiolipoma (CAL) and infiltrating angiolipoma (IAL). However among these two, CAL is more common. It has a definite proliferation of thin-walled vascular component⁶. The ratio of fat tissue to vascular tissue in hemangiolipoma is different. There are few hypotheses suggesting the pathogenesis of hemangiolipoma which includes hematogenic, reactive, neurogenic and congenital. Among these four, congenital etiology is more favourable suggesting embryonic sequestrations of multipotential cells². The treatment for either CAL or IAL is complete excision of the tumour. It has been reported that almost 50% recurrence for IAL while zero recurrence for CAL⁷.

In our case, the patient presented with painless cheek swelling few months prior to presentation. It was quite difficult initially to find the exact

diagnosis as the location of the tumour at the parotid region and inconclusive finding upon ultrasonographic examination, though parotid hemangiolipoma has been reported⁸.

There has been a similar case reported by Cassoni et al in 2012 whereby the patient presented with one year progressive painless swelling of the right cheek. The ultrasonography done suggestive of lipoma and they proceeded with fine needle aspiration for cytology. However the result was inconclusive. After an MRI with gadolinium, followed by the dynamic angiography, the lesion was likely to be angiolipoma. Subsequently the patient underwent surgical resection via intraoral approach and the procedure was uneventful⁹. With the advent of radiological investigation such as magnetic resonance imaging, we can detect soft tissue involvement of the lesion as in this patient.

Conclusion:

Though its rare occurrence especially among the paediatric age group, angiolipoma should be ruled out and in such cases, angiography has a role to look for the extent of the tumour and identify the feeding vessel.

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