

Intramuscular Lipoma and the Cheek: A Rare Combination

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Abstract

Lipoma are the common soft tissue tumors but occur infrequently in the oral region. They account for approximately 1% of all benign tumors of the oral cavity. Lipomas usually consist of demarcated mass in the subcutaneous tissue but intramuscular lipomas are less circumscribed, deeply seated lesions involving muscle. They are comparatively uncommon. We reported case of intramuscular lipoma of cheek. Excision biopsy was performed under general anaesthesia that showed mass was easily separable from surrounding tissue but was tethered superficial and deeper structures. Histopathological examination revealed it was intramuscular lipoma. There was no evidence of recurrence after one year and six months.

Keywords: Lipoma; Tumors; Biopsy; Oral Cavity

Introduction

Lipomas are the common benign soft tissue tumors of the adipose tissue but are relatively uncommon in Maxillofacial region. Lipoma present proliferation of mature white adipocytes without atypia and are common mesenchymal neoplasms of soft tissue in adults. Lipoma are frequently found in upper back, shoulder, neck and abdomen followed by proximal portions of extremities mainly upper arms, upper thighs and buttocks [1]. Paget is said to have presented case of lipoma occurring within trapezius muscle in 1856 [2]. Lipoma account for approximately 1% of all benign tumors occurring in oral cavity [3]. Multiple involvement is known as benign symmetrical lipomatosis (Madelung's disease) and demonstrated by diffuse growth of non-encapsulated lipomas [4,5]. Lipoma commonly have demarcated mass in the subcutaneous tissue but even sometimes have less circumscribed, deeply placed lesion that maybe involving nerve, muscle or synovium [6]. Deep seated intramuscular lipomas of two types are lipomas and angiolipomas [7]. Angiolipoma have prominent vascular component [8] and usually develop in the trunk and extremities and rarely arise in head and neck region. Angiolipoma occurrence in cheek is very low. Infiltrating (intramuscular) lipomas are composed of mature adipose cells, inconspicuous blood vessels and delicate strands of connective tissue and usually not encapsulated [9]. Intramuscular lipoma are rare in head and neck region and the most common site is the tongue [10]. Infiltrating lipomas are commonly located in the limbs [11,12]. Fifty percent of them are located in thigh region, twenty percent in shoulder and upper arm region, twenty percent in chest wall and rest ten percent on other locations [13]. As of the rarity, we present a case of intramuscular lipoma of oral cavity.

Case Report

A 17 year old female patient presented with painless nodule in her right cheek that she first noticed about 6 months ago. Neither past medical nor past family history was contributory. There was no history of injury to face. On palpation, lesion was firm, non-fluctuation and measured around 6.5 cm to 7.5 cm. The overlying skin and oral mucosa appeared normal and there was no pulsation present over the mass. There were no signs of trismus, neuroparalysis or cervical lymphadenopathy.

Ultrasonography was done that revealed 4 x 2 cm mass present in the musculature compartment of the cheek. Parotid and submandibular glands appeared normal. Orthopantomogram (OPG) revealed no mandibular bone involvement (Figure 1).

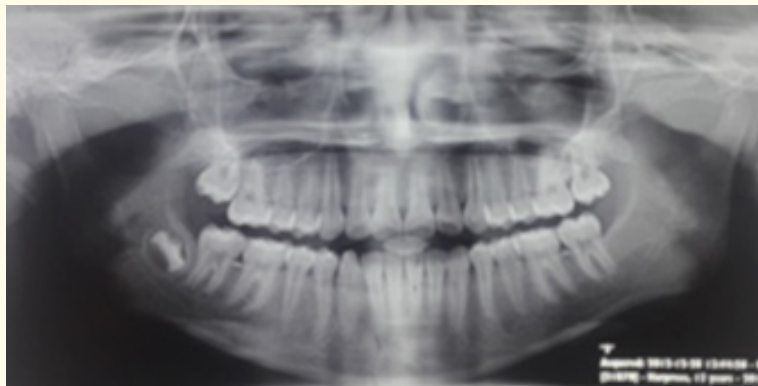


Figure 1: OPG reveals no bony involvement.

The lesion was removed under general anaesthesia using the transoral technique (Figure 2).



Figure 2: Lesion removed using transoral approach.

The removal was slightly tough as the lesion was firmly attached to the neighbouring soft tissues. The gross appearance was of soft yellow mass that was irregular, lobulated, firm, fibrofatty lesion with no evidence of encapsulation (Figure 3).

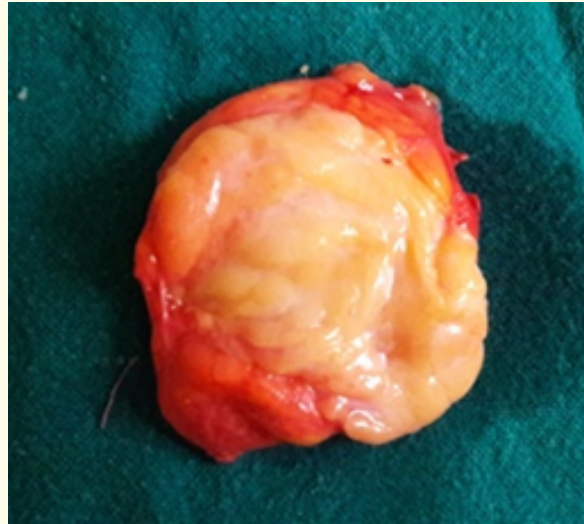


Figure 3: Lesion clinical appearance immediately following removal.

Histological examination of sections of the mass stained with haematoxylin and eosin showed proliferation of mature adipocytes that had infiltrated muscle fibres. There was complete absence of cellular atypia. The histopathological diagnosis was suggestive of lipoma. There was no incidence of recurrence on follow up.

Discussion

Benign lipomas are commonest mesenchymal tumors of soft tissues but occur infrequently in Oral and Maxillofacial region. Lipomas consist of fat tissue and are commonest soft tissue neoplasms. They are routinely painless and macroscopically found to be soft and mobile. They were first described by Von Rokitansky in 1856 as an autopsy finding [14]. Benign lipomatous tumors like spindle cell, pleomorphic lipomas, lipoblastoma and intramuscular lipoma may sometime make diagnostic analysis difficult and are mistaken for liposarcoma. Radiographic imaging and histopathological examination play a vital role in differentiating intramuscular lipoma from liposarcoma [15]. Senchenkov and Werning analysed that computed tomography and magnetic resonance imaging findings could not differentiate properly between liposarcoma and intramuscular lipoma [16]. Proper inspection and extensive sampling plays extensive role in recognition of atypical cells that are present in liposarcoma [17]. Liposarcoma generally tends to present with multiple masses whereas lipoma presents as solitary mass [18]. Oral infiltrating lipomas are larger than ordinary oral lipoma and are deep seated, painless slow growing masses that present as swelling and deformity [7]. Their size may vary from small to 20 cm or even greater diameter [13]. Usually these tumors present as non-encapsulated, slow growing, flat, soft texture when surrounding muscle is relaxed and appear spherical as muscle contracts [7,13]. Rarely muscle infiltration is such extensive that it can cause muscle dysfunction/sensory changes due to pressure on nerve trunks [7]. Sometimes the muscle tissue gets replaced by fat that may extend from muscle fascia to intermuscular connective tissue spaces [19]. Lipoma has the tendency to infiltrate into joint capsules, bones, and nerves. Due to such infiltrating nature, it has high chances of recurrence if complete surgical excision not performed [20].

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