

Chondrolipoma of the Lower Lip: A Rare Clinical Entity Case Report

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Abstract

A chondrolipoma of lower lip is an extremely rare entity, which is a lipomatous tumour of benign soft tissue, containing mature fatty tissue and mature cartilage. Lipomas are one of the common benign mesenchymal neoplasms of the human body, with 15 to 20% of the cases occurring the head and neck region with rare occurrence in the oral cavity (1 to 4%). Here in this report, we present a 50 years old female presented with a painless swelling on her lower lip; on the basis of clinical and histopathological examination the diagnosis of chondrolipoma of the lower lip was made. Considering the proximity of chondrolipomas to mandibular bone, as it was in our case, and with the given history of lip biting

habit of the patient, microtrauma may be the cause of the chondro-osseous metaplasia.

Keywords: Chondrolipoma, lower lip, precursors of adipose cells

Introduction

Lipomas are one of the common benign mesenchymal neoplasms of the human body, with 15 to 20% of the cases occurring the head and neck region with rare occurrence in the oral cavity (1 to 4%).¹ Oral lipomas chiefly affect the buccal mucosa, floor of mouth, tongue and lips. Most commonly seen in females over 40 years of age.² It is suggested that the precursors of adipose cells resemble fibroblasts and that their fat content is acquired by the imbibition of soluble fat or by intra-cellular elaboration. Therefore, the fat cell is probably not a separate and

unalterable cell hut is preceded by metaplastic transformation in connective-tissue cells. Consequently, this transformation may occasionally lead to the production of fat tissue in abnormal sites.³ It appears clinically as nodular, sessile or pedicle masses, with soft consistency, yellowish colour, smooth and nonulcerated surface.⁴ Histologically, lipomas can be broadly classified as simple lipoma or variants, such as fibrolipoma, , intramuscular or infiltrating lipoma, spindle cell lipoma, angiolipoma, pleomorphic lipoma, chondroid lipoma, salivary gland lipoma (sialolipoma), osteoid lipoma, and atypical lipomas.⁵ Here in this article, we report a case of a Chondrolipoma of the lower lip occurring in a 50 years old female .

Case Report

A 50 years old female presented with a painless swelling on her lower lip which had developed 3 months back as a small nodule and gradually increased to it's present size. The patient gave no history of past medical complications however a personal history of lip biting habit was revealed by the patient. Clinical examination revealed a solitary sessile swelling measuring approximately 3 x 2 x 1 cm. in dimensions on the labial mucosa of the lower lip with well-defined margins. The overlying mucosa was normal in appearance. (Figure-1) On palpation, the swelling appeared to be pseudo-fluctuant and depicted the classic "slip-sign" of lipoma. Transillumination test was performed for the swelling which resulted to be positive. A provisional diagnosis of 'lipoma of the lower lip' was given and the case was planned for excisional biopsy. Proposed surgical site prepared by painting with Betadine. Boundaries of the swelling marked with haematoxylin pencil to mark the extent of incision and dissection required. Lidocaine with 1:80,000 adrenaline administered locally to the proposed surgical site. Semilunar incision placed at the base of the swelling. Submucosal dissection

done, swelling contents excised in toto. (Figure-2,3) Surgical site cleared with Betadine and closed using 3-0 Black Braided Silk. (Figure-4) The procured specimen was immediately transferred into a formalin filled specimen jar and sent for histopathological study. On one month follow up a satisfactory healing of the surgical site achieved. (Figure-5)

Microscopic Finding

The haematoxylin and eosin-stained section reveals an encapsulated lesion composed of mature adipocytes which are arranged in lobules and separated by thin connective tissue septae. In the centre of the lesion is seen an island of mature cartilage and also evident areas of myxoid tissue noted.

Discussion

A chondrolipoma of lower lip is an extremely rare entity, lipomatous tumour of benign soft tissue, containing mature fatty tissue and mature cartilage¹. Chondrolipomas may be found almost anywhere in the body, particularly in the connective tissues of the breast, head and neck area, as well as in the skeletal muscle.² Various histopathological variants of lipoma have been recognized, such as fibrolipoma, angiolipoma, myolipoma, spindle cell lipoma, chondroid lipoma and osteolipoma. Surgical excision is the line of management in case of lipomas and its variants. Histopathological examination of the excised tissue is a must to determine the correct diagnosis. No data on recurrence rates and malignant transformations of chondrolipomas are available until now. In the literature two possible explanations for pathogenesis of chondrolipoma have been proposed for cartilage and bone formations in benign mesenchyme. The first is that cartilage arises from chondro-osseous metaplasia of adipose tissue, presumably due to mechanical stress or trophic disturbance. The close contact or proximity of tumors to bone or large joints is often associated with

metaplastic changes. The second is that the cartilage may originate from differentiation of multipotential cells in the mesenchyme. Another study concluded expressions of transforming growth factor- β (TGF- β), latent TGF- β binding protein-1 (LTBP-1) and bone morphogenetic protein (BMP) in chondrolipomas, which pointed to unique pathogenesis of this neoplasm⁶. Considering the proximity of chondrolipomas to mandibular bone, as it was in our case, and with the given history of lip biting habit of the patient, microtrauma may be the cause of the chondro-osseous metaplasia.

Conclusion

In the literature a very limited number of cases of chondrolipoma in lower lip have been reported till today. Considering the proximity of chondrolipomas to mandibular bone, as it was in our case, and with the given history of lip biting habit of the patient, microtrauma may be the cause of the chondro-osseous metaplasia. As the lower lip is composed of heterogeneous mass of tissues which can give rise to various lesions, surgical excision with histopathological examination is paramount in the final diagnosis.

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Legend Figures



Figure 1: Pre operative swelling



Figure 2: Intra operative picture



Figure 3: Excised specimen



Figure 4: Closure done using 3-0 BBS



Figure 5: One month post-operative follow up