Intramuscular Lipoma of the Cheek: Report of Two Cases

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Abstract: Two cases of intramuscular lipoma occurring in the cheek of a 39-year-old and of a 55-year-old Japanese males are presented. These were excised by the intraoral approach. Histopathologically, these lesions were composed of the adipose cell-like tumor cells infiltrating in the striated muscles. There has been no evidence of tumor recurrence after operation.

Key words: Intramuscular lipoma, Cheek

Introduction

Intramuscular lipoma is most commonly found in the deep muscles of the buttocks, shoulder, thigh, and extremities, but it is quite rare in the oral region. Since it is not encapsulated and shows diffuse muscular infiltration, complete excision is difficult. We report two rare cases of intramuscular lipoma of the cheek.

Case Report

Case 1.

A 39-year-old Japanese male was referred to our outpatient clinic in May 2003, with a chief complaint of the left cheek swelling that had been present for four years. The lesion was covered by normal-appearing mucosa. On palpation, an elastic and hard mass measuring 20 mm in diameter was recognized. The clinical diagnosis was a benign mesenchymal tumor of the left cheek. The lesion was extirpated under general anesthesia (Fig. 1a, b).

Case 2.

A 55-year-old Japanese male was referred to our outpatient clinic in February 2006, with a chief complaint of left buccal mucosal swelling that had been present for five years. An elastic and soft mass measuring 15 mm in diameter was seen in the anterior part of the left buccal mucosa. The clinical diagnosis was a benign mesenchymal tumor of the left buccal mucosa. The lesion was excised under local anesthesia (Fig. 2a, b). Because the abrasion of the tumor was difficult, the surrounding connective tissue was removed with the tumor.

Surgical Specimens and Histopathology

The gross appearance of both tumors was pale yellowish and a fatty mass without encapsulation. Microscopically, the tumor in case 1 was composed of adipose cell-like tumor cells infiltrating the buccinator muscle beneath the submucosa (Fig. 3a). The tumor in Case 2 was composed of adipose cells surrounding and separating irregular bundles of striated muscle (Fig. 3b). There were no lipoblasts nor mitosis. The final histopathological diagnosis in both cases was intramuscular lipoma of the cheek.
Lipoma is a benign tumor of the adipose tissue. Although it represents by far the most common mesenchymal neoplasm, most examples occur on the trunk and proximal portions of the extremities. However, it rarely occurs in the oral region. Histologically, intramuscular lipoma is characterized by atrophic muscular fibers scattered in mature adipose tissue\(^1\). Although intramuscular lipoma is recognized as a histologic subtype of lipoma, it is simply lipoma with entrapped muscle fibers\(^2\).

Only sixteen cases of intramuscular lipoma of the oral cavity have been reported in the English literature\(^2\-8\). Nine cases were located in the tongue, four in the cheek, and one each in the submandibular region, in the mental region\(^2\), and in the floor of the mouth.
Clinically, oral intramuscular lipoma presents as a well-circumscribed and painless solitary submucosal swelling. Upon palpation, the tumor is semifirm and rubbery, with poorly defined margins. It is usually situated in the deeper tissues. In our cases, case 2 was situated in the shallower tissue. Recurrence of the tumor is frequently seen. The recurrence rate has been reported to range from 3.0 to 62.5%. The intramuscular lipoma is not encapsulated, and complete excision is difficult because of the diffuse muscular infiltration. Wide excision of the tumor is suggested by some authors, but this approach often results in significant morbidity. No recurrence was observed in either of the two cases reported here during 57 months and 25 months of respective postoperative follow up.

Liposarcoma is important in the differential diagnosis, because well-differentiated liposarcomas often contain many area of lipomatous tissue. This sarcoma is characterized by areas of lipoblastic proliferation, myxoid differentiation, cellular pleomorphism, increased vascularity, and mitosis. These features are not present in infiltrating lipoma. No malignant change has been reported for recurrent intramuscular lipomas. Our cases had no areas of lipoblastic proliferation, cellular atypia, nor mitosis suggesting liposarcoma.

References