

Pregnant Female with “Bump” in Cheek

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Online Case: www.dentalcare.com/en-us/professional-education/case-challenges/case-challenge-059



The following Case Challenge is provided in conjunction with the UT Health San Antonio School of Dentistry faculty.

A 32-year-old gravid female was advised by her obstetrician to have a “bump” in her cheek evaluated by a dentist.

After you have finished reviewing the available diagnostic information, make the diagnosis.

Diagnostic Information

History of Present Illness

Ms. Thomas is a 32-year-old gravid white female who presents with a complaint of, "I have this bump in my cheek that I need checked out." She was advised by her obstetrician to have it evaluated by a dentist. She relates first noticing it when she bit her cheek while eating about 8 months ago. It felt better in a few days and has not bothered her since. She has not been to a dentist during the past 15 months.

Medical History

- Adverse drug effects: none
- Medications: Celexa, multivitamins, iron supplements
- Pertinent medical history: depression x 10 years; she is due to deliver her third child in 10 weeks; prior pregnancies were uncomplicated
- Pertinent family history: maternal - diabetes type 2; paternal - lung cancer and death at age 58; no siblings
- Social history: denies tobacco use; no alcohol currently (does drink one glass of wine per night when not pregnant); prior marijuana use during college

Clinical Findings

Extraoral examination is within normal limits. Intraoral examination reveals an intact dentition with good oral hygiene and mild gingivitis. A 3 x 1.5 cm lobulated submucosal mass is noted in the lower left buccal mucosa adjacent to #18/19 and inferior to the occlusal plane. The lesion is feely moveable and the patient notes some discomfort when it is squeezed. In consultation with her obstetrician and with the consent of the patient, the lesion was excised and submitted for histopathologic assessment.

Histopathologic Findings

The biopsy shows a circumscribed submucosal mass composed of lobules of mature adipose tissue. The round adipocytes display clear cytoplasm and peripheral small bland basophilic nuclei. The lobules are separated by bands of densely collagenous fibrovascular connective tissue. The specimen is surfaced by acanthotic parakeratinized stratified squamous epithelium.



Figure 1. Lobulated yellow submucosal mass in the left buccal pad.

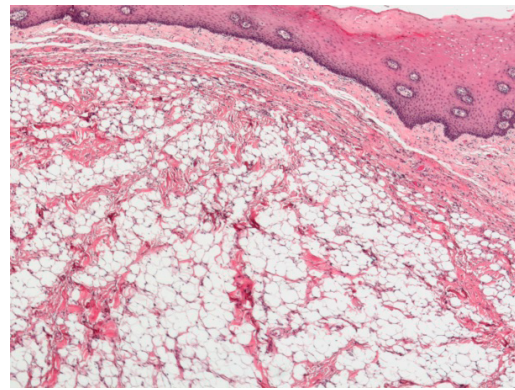


Figure 2. Low-power histologic image showing a circumscribed submucosal lobular mass of adipose tissue. The mass is surfaced by acanthotic stratified squamous epithelium.

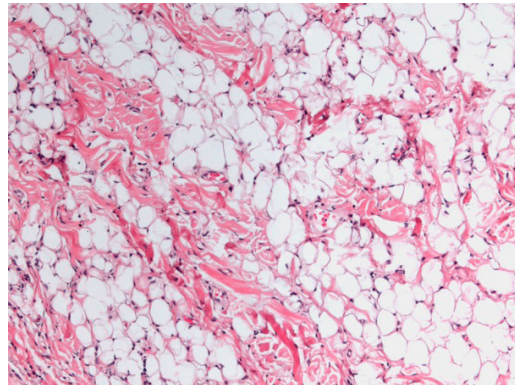


Figure 3. High-power histologic section showing lobules of mature adipose tissue composed of round cells with clear cytoplasm and small peripheral basophilic nuclei. Intervening bands of collagenous fibrovascular connective tissue are present.

Select Diagnosis

Can you make the diagnosis

A 32-year-old gravid female with bumps in her cheek.



Select the Correct Diagnosis

- A. Fibroma
- B. Mucous extravasation phenomena (mucocele)
- C. Neurilemoma (schwannoma)
- D. Lipoma

Fibroma

Choice A. Sorry, this is not the correct diagnosis.

A fibroma is the most common soft tissue tumor to affect the oral cavity, with a prevalence of about 1.2%.^{1,2} The vast majority are not true tumors, but rather reactive hyperplasia of fibrous connective tissue in an area of previous trauma. Not surprisingly, the most common sites of occurrence are areas frequently traumatized such as the tongue, buccal mucosa, and lower labial mucosa.³ Most are diagnosed between the fourth and sixth decades of life and there appears to be no sex predilection.¹ The typical fibroma presents as an asymptomatic, broad-based, normal mucosal colored, smooth surface nodule. Some lesions demonstrate superficial ulceration as a consequence of secondary trauma. The appropriate treatment is simple excision and submission for histologic assessment to rule out other lesions such as a neurofibroma, neurilemoma, granular cell tumor, salivary gland tumors, or lipoma. The histopathologic characteristics include a rather banal presentation of dense collagen, multiple mature fibroblasts, and scattered chronic inflammatory cells.³ The histopathologic findings in this case do not support this diagnosis.

Please re-evaluate the information about this case.

Mucous extravasation phenomena (mucocele)

Choice B. Sorry, this is not the correct diagnosis.

A mucocele arising in the minor salivary gland is relatively common and typically occurs in the lower lip.³ Other common sites of occurrence are the buccal mucosa, ventral tongue, floor of the mouth, and retromolar region. There is no sex predilection and while any age may be affected, the peak incidence is during the second decade of life. Trauma resulting in disruption of the flow of saliva into the oral cavity is thought to underlie most cases. The entrapped saliva accumulates in the connective tissue to form a mass. The most common presentation is that of an asymptomatic, smooth surfaced, fluctuant, bluish, submucosal nodule.¹ Histopathologic characteristics include a focal accumulation of mucous surrounded by granulation tissue and possible inflammation, ductal metaplasia and atrophy of the affected minor salivary gland.³ The presence of an epithelial lining indicates the lesion is not a mucocele, but a mucous retention cyst. While some mucoceles undergo spontaneous involution and resolution, chronic lesions are usually managed with simple excision. During surgery, it is important to remove all potential feeder glands and any visible glands to minimize the risk of recurrence.¹ The histopathologic findings in this case do not support this diagnosis.

Please re-evaluate the information about this case.

Neurilemoma (schwannoma)

Choice C. Sorry, this is not the correct diagnosis.

A neurilemoma (schwannomas) is a benign, slow-growing, epineurium-encapsulated neoplasm of Schwann cell origin.^{1,4} An estimated 25% - 48% occur in the head and neck region and the most frequently affected oral site is the tongue. The neurilemoma typically presents as a solitary asymptomatic, slow growing, firm, mass in a young or middle-aged adult. Some cases may present with paresthesia or pain. Histopathologic hallmarks of the neurilemoma include tumor encapsulation and the presence of hypercellular spindled cells arranged in palisades (Antoni A); central acellular eosinophilic areas (Verocay bodies); disorganized areas of edematous, myxoid-appearing stroma with few spindled cells (Antoni B); and positive immunohistochemical staining with S-100 protein.⁵ Surgical excision is the treatment of choice and recurrence is rare. The histopathologic findings in this case do not support this diagnosis.

Please re-evaluate the information about this case.

Lipoma

Choice D. Congratulations! You are correct.

A lipoma is the most common mesenchymal tumor to affect man, but they infrequently occur in the oral cavity.^{1,6} They are slow growing, usually asymptomatic, and usually identified between 40-60 years of age.⁷ While any site may be affected, the most common reported oral sites of occurrence are the buccal mucosa, tongue and lower lip, and there appears to be a slight male predilection.^{6,7} Based on histopathologic examination, oral lipomas may be classified as: 1) classic lipoma, 2) fibrolipoma, 3) spindle cell lipoma, 4) angioliipoma, 5) salivary gland lipoma, 6) pleomorphic lipoma, or 7) atypical lipoma.⁸ The classic lipoma and fibrolipoma variants account for about 80% of all cases. Most lipomas are managed with conservative excision and recurrence is uncommon, except for lipomas located within muscle which may require more aggressive surgical excision.⁸ The present case represents a classic lipoma.

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