ARCHIVES OF HELLENIC MEDICINE: ISSN 11-05-3992

CONTINUING MEDICAL EDUCATION
ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

ARCHIVES OF HELLENIC MEDICINE 2011, 28(2):281–282
ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2011, 28(2):281–282

Oral Medicine and Pathology Quiz – Case 16

N.G. Nikitakis,
G. Kamperos,
A. Sklavounou-Andrikopoulou

Department of Oral Medicine and Pathology, School of Dentistry, National and Kapodistrian University of Athens, Athens, Greece

A 21-year-old female was referred to our clinic for investigation of an asymptomatic blister of a few days duration on the lower labial mucosa. The patient reported absence of any other oral or skin lesions. Her medical history was non contributory. On clinical examination, a small translucent vesicle (3.0 mm in diameter) was observed on the right lower mucolabial fold (fig. 1). The rest of the oral mucosa was normal. The patient denied using any topical medications/ointments, mouthwashes, or tartar-control toothpastes, and was unable to correlate the lesion's first appearance with trauma, eating, drinking, or toothbrushing. On the basis of the clinical diagnosis, the patient was advised to return to the clinic after one week. On the follow-up, the patient reported that the lesion had ruptured and healed; no signs of recurrence were observed. No new lesions developed during the subsequent months.

Comment

Mucocele is a common lesion of the oral mucosa developing as a result of salivary gland duct rupturing. Subsequent to duct trauma, mucus extravasates into the surrounding soft tissues, usually eliciting an inflammatory response with granulation tissue formation. The lesion more commonly affects children and young adults, with no gender predilection. The lower lip is the most frequently involved site. Nevertheless, these lesions may develop in any location harboring a minor salivary gland. Clinically, the lesions present as painless, soft, dome-shaped, fluid-containing, mucosal swellings. Depending on the depth of development, they may appear as bluish or normal in color. They grow slowly and typically have a diameter ranging from a few millimeters to 2.0 cm. Histopathologically, the extravasated mucin is surrounded by a wall of inflamed granulation tissue containing numerous macrophages, with no epithelial lining (i.e. pseudocyst formation). Total excision of the lesion along with any salivary gland in the surgical field, is the treatment of choice.

Figure 1

The superficial variant of mucoceles has received less attention, since its first description by Eveson in 1988. These lesions occur on clinically noninflammed mucosa, appearing as small, translucent, tense, single or multiple, circumscribed vesicles, 1.0–5.0 mm in diameter. The lesions usually rupture within 24 hours, leaving a small white pseudomembrane composed of collapsed epithelium. Complete healing usually occurs in one to two days, although the lesions occasionally recur at the same or different sites. The most common sites of occurrence are the posterior buccal mucosa, retromolar pad area and posterior soft palate; notably, the latter two sites are unusual for the development of typical mucoceles. Superficial mucoceles are more common in adult women (>30 years old).

Histopathologically, the vesicle of superficial mucocele is subepithelial. The roof of the lesion usually is dome-shaped and is covered by attenuated squamous epithelium. The cavity contains a pool of amorphous mucus with scattered neutrophils. The floor of the vesicle contains a mixed inflammatory cell infiltrate of varying intensity. Partial or complete epithelial regeneration may occur across the floor of the vesicle.

The etiology of superficial mucoceles remains largely unknown. Possible triggering factors include trauma as well as various foods and liquids, including tea, hydrogen peroxide, tartar-control toothpastes and mouthwashes. Superficial mucoceles have also been linked to various diseases, most commonly graft-versus-host disease (cGVHD) and lichen planus. The role of these conditions in the development of superficial mucoceles is unknown and requires further investigation.

Clinically, superficial mucocele should be differentiated from oral vesiculobullous and ulcerative lesions such as mucous membrane

pemphigoid (MMP), bullous and erosive lichen planus, recurrent intraoral herpes, and recurrent aphthous stomatitis. Clinical appearance of a small tense subepithelial vesicle filled with mucus supports the diagnosis of superficial mucocele. Moreover, the histopathologic features must be discriminated from changes associated with bullous lichen planus and MMP. Microscopic features of lichen planus, such as subepithelial band-like lymphocytic infiltrate and hydropic degeneration of the basal cells, are essentially lacking. On the other hand, the distinction between superficial mucocele and MMP on a microscopic level is more subtle. Normal thickness of the epithelium, inflammation of the underlying chorium, and extension of the subepithelial separation at the periphery of the vesicle are all supportive of MMP, along with a more widespread mucosal involvement. By contrast, the presence of salivary gland tissue (particularly ducts) in close proximity to a subepithelial blister strongly suggests a superficial mucocele.

Most superficial mucoceles usually resolve spontaneously and require no treatment. Total excision of the lesion is advised only in cases presenting diagnostic difficulties. In case of multiple lesions, laser vaporization has been used with good results.

References

1. XU GZ, YANG C, YU CQ, HE D, ZHANG S. Multiple superficial mucoceles on lower lip, soft palate, retromolar region, and floor of mouth. *J Oral Maxillofac Surg* 2010, 68:2601–2603
2. CAMPANA F, SIBAUD V, CHAUVEL A, BOIRON JM, TAIEB A, FRICAIN JC. Recurrent superficial mucoceles associated with lichenoid disorders. *J Oral Maxillofac Surg* 2006, 64:1830–1833
3. BERMEJO A, AGUIRRE JM, LÓPEZ P, SAEZ MR. Superficial mucocele: Report of 4 cases. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 1999, 88:469–472
4. EVESON JW. Superficial mucoceles: Pitfall in clinical and microscopic diagnosis. *Oral Surg Oral Med Oral Pathol* 1988, 66:318–322

Corresponding author:

N.G. Nikitakis, Department of Oral Pathology and Medicine, School of Dentistry, National and Kapodistrian University of Athens, 2 Thivon street, GR-115 27 Athens, Greece, tel: +30 210 74 61 003, fax: +30 210 7461220
e-mail: nnikitakis1@yahoo.com