

Commentary

A Note on the Structure of Oral Mucosa

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Description

The oral mucosa is the lining of the mouth. It comprises the satisfied squamous epithelium, termed "oral epithelium", and an underlying animal tissue termed lamina propria. Sometimes the mouth has been described as a mirror that reflects the health of the individual. The changes indicative of disease are seen as alterations within the oral mucosa lining of the mouth, which may reveal systemic conditions, like diabetes or vitamin deficiency, or the local effects of chronic tobacco or alcohol use. The oral mucosa tends to heal faster and with less scar formation compared to the skin. The underlying mechanism remains unknown, but also researchers suggest that extracellular vesicles could be involved counting on the region of the mouth; the epithelium could also be non-keratinized or keratinized. The non-keratinized squamous epithelium covers the taste bud, inner lips, inner cheeks, and therefore the floor of the mouth, and ventral surface of the tongue. The keratinized squamous epithelium is present within the gingiva and surface also as areas of the dorsal surface of the tongue.

The keratinization is the differentiation of keratinocytes within the stratum into non vital surface cells or squames to make the corneum. The cells terminally differentiate as they migrate to the surface from the stratum germinativum where the progenitor cells are located to the superficial surface. Unlike keratinized epithelium; non-keratinized epithelium normally has no superficial layers showing keratinization. The non-keratinized epithelium may, however, readily transform into a keratinizing type in response to frictional or chemical trauma, during which case it undergoes hyper-keratinisation. This alteration to hyperkeratinization commonly occurs on the usually non-keratinized buccal mucosa when the linear Alba forms, a white ridge of calloused tissue that extends horizontally at the extent where the maxillary and mandibular teeth close and occlude [1]. Histologically, an excess amount of keratin is noted on the surface of the tissue, and therefore the tissue has all the layers of an ortho-keratinized tissue with its granular and keratin layers. In patients who have habits like clenching or grinding (bruxism) their teeth, a bigger area of the buccal mucosa than simply the linear Alba becomes hyper-keratinized. This larger white, rough, raised lesion must be recorded in order that changes could also be made within the dental treatment plan regarding the patient's para functional habits. The keratinized tissue can undergo further level of hyper-keratinization; a rise within the amount of keratin is produced as results of chronic physical trauma to the region. The changes like hyper-keratinization are reversible if the source of the injury is removed, but it takes time for the keratin to be shed or lost by the tissue. Thus, to see for malignant changes, a baseline biopsy and from microscopic study of any whitened tissue could also be indicated, especially if during a high-risk cancer category, such with a history of tobacco or alcohol use or are HPV positive. Hyper-keratinized tissue is

additionally related to the warmth from smoking or hot fluids on the surface within the sort of nicotinic stomatitis.

The lamina propria may be a fibrous animal tissue layer that consists of a network of type I and III collagen and elastin fibers in some regions. Most cells of the lamina propria are the fibroblasts, which are liable for the assembly of the fibers because of their extracellular matrix. The lamina propria, like all sorts of animal tissue proper, has two layers: papillary and dense. The papillary layer is that the more superficial layer of the lamina propria. It consists of loose animal tissue within the animal tissue papillae, it's alongside blood vessels and nervous tissues are there. The tissue has an equal amount of fibers, cells, and matrix. The dense layer is that the deeper layer of the lamina propria. It consists of dense animal tissue with an outsized amount of fibers. Between the papillary layer and therefore the deeper layers of the lamina propria may be a capillary plexus, which provides nutrition for the all layers of the mucosa and sends capillaries into the animal tissue papillae [2].

A sub-mucosa may be a present deep within the dense layer of the lamina propria, counting on the region of the mouth. If present, the sub mucosa usually contains loose animal tissue and should also contain fat or salivary glands, also as overlying bone or muscle within the mouth. The oral mucosa has no muscular is mucosae, and clearly identifying the boundary between it and therefore the underlying tissues is difficult. Typically, regions like the cheeks, lips, and parts of the surface contain sub mucosa (a layer of loose fatty or glandular animal tissue containing the main blood vessels and nerves supplying the mucosa). The sub mucosa's composition determines the pliability of the attachment of oral mucosa to the underlying structures. In regions like the gingiva and parts of the surface, the oral mucosa is attached on to the periosteum of underlying bone, with no intervening sub mucosa [3]. This arrangement is named a mucoperiosteum and provides a firm, inelastic attachment. A variable number of fordyce spots or granules are scattered throughout the non-keratinized tissue. These are a traditional variant, visible as small, yellowish bumps on the surface of the mucosa. They correspond to deposits of sebum from misplaced sebaceous glands within the sub mucosa that are usually related to hair follicles. A basal lamina (basement membrane without aid of the microscope) is at the interface between the oral epithelium and lamina propria almost like the epidermis and dermis.

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