Oral Pathology

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Diseases of the Tongue

Traumatic Atrophic Glossitis

- The most common location for traumatic atrophic glossitis is the anterior tip of the tongue .

Less commonly; lesions are located on the lateral margins, extending onto the dorsal surfaces.

- They are frequently found in patients who have had recent restorations or other changes in their oral environment.

Patients with atrophic glossitis usually overuse their tongues in a compulsive manner to explore recently placed restorations or other intraoral changes such as broken fillings, chipped cusps, or sharp incisal edges.

The lesions located on the lateral tongue occur secondary to the extensive movement of the anterior tongue over the crowns of the cuspids and premolars. Other causes of this condition are a loose upper denture that is constantly being reseated with the tongue, extensive calculus on the lingual surfaces of the mandibular teeth, and malaligned or crowded anterior teeth.

Histopathology:

The microscopic features of the lesion consists of thinned epitheliurn devoid of filiform papillae and connective tissue containing a diffuse infiltrate of lymphocytes and plasma cell .,as well as dilated capillaries and venules.

Treatment:

Consists of identifying the factors that become the focus of the patient's attention and correcting them and any other rough or uncomfortable areas such as exposed margins, sharp edges, calculus deposits, or loose appliances.

Benign Migratory Glossitis

Benign migratory glossitis is also commonly referred to as ***geographic tongue,*** because the clinical appearance of the tongue often resembles a map of the world. The cause of this lesion is still unknown; however; many feel that chronic irritation, similar to that described as the cause of chronic atrophic glossitis.

Many patients will have crowding of the lower arch with one or more mandibular premolars or anterior incisors, producing some degree of irritation of the tongue even during normal movement.

Clinical Features:

A distinctive clinical features of benign migratory glossitis is the daily change in the size and shape of the lesions.

Patients of all age groups have been found to exhibit these tongue lesions.

New lesions commonly begin on the lateral borders and anterior tip of the tongue and gradually enlarge in a circumferential pattern.

Individual lesions have a characteristic appearance consisting of a central atrophic area exhibiting loss of the filiform papillae.

An erythematous zone with a slightly raised, distinct, whitish line at the junction with the normal tissue rims the atrophic areas .In ensuing days, the epithelium regenerates and the central area of the lesion gradually develops a normal appearance. As the lesion enlarges, its borders gradually become less distinct. Similar-appearing lesions consisting of circular lesions of other oral mucosal surfaces, such as the ventral tongue, floor of the mouth, and buccal vestibule, are occasionally present and referred to as **stomatitis areata migrans**. The clinical behavior of these lesions is similar to that of benign migratory glossitis, although no associated traumatic lesions are usually apparent.

Histopathology:

The microscopic appearances of benign migratory glossitis and stomatitis areata migrans are distinctive, consisting of an outer zone of sub corneal abscesses (neutrophils) separating the normal from the atrophic epithelium. The underlying connective tissue contains an infiltrate of chronic inflammatory cells and an increase in the size and number of vascular structures**.**

Treatment:

consists of removing local sources of irritation and informing the patient to avoid the factors and circumstances that may contribute to the exacerbation of the disease.

Brushing of the tongue should be avoided, because it tends to intensify and prolong the condition.

Hairy Tongue

Normally, the dorsal surface of the tongue is composed of fine, whitish filiform papillae on a pink mucosal background. Occasionally, the filiform papillae fail to shed their superficial layer of keratin, allowing it to accumulate and elongate the papillae into hair like strands. The causes of the decrease in the normal pattern of desquamation are unknown but have been associated with a variety of factors such as **smoking**, chromogenic bacteria, **medications**, or **foods**.
The elongated papiIlae, are generally confined to the posterior third of the dorsal tongue but may include the middle third in lesser amounts. In some patients the hair like strands may become sufficiently elongated to tickle the uvula or soft palate or cause gagging.

The elongated papillae may become stained. Colors vary from black to cream, with most shades of brown. However, hairy tongue is more an annoying condition than a serious one.

In milder cases, patients are usually concerned and uncomfortable with the appearance of the tongue, Feeling that it portrays poor oral hygiene.
Treatment:

Attempts to eliminate possible contributing factors such as smoking, antibiotics, oxidizing mouthwashes containing peroxides and perborates, medications, and antacids (particularly those containing bismuth).

In some patients, lightly scraping or brushing the tongue daily aids the desquamation process and may reduce the severity of the condition.

Commonly the condition spontaneously resolves.

Fissured Tongue (scrotal tongue)

Fissured tongue is a somewhat prevalent condition, particularly in older patients, and it appears to be more prominent in some families. It is commonly associated with other conditions, the most common being benign migratory glossitis (geographic tongue), chronic xerostomia, and the Melkersson- Rosenthal-syndrome. The fissures may be shallow or up to (5 to 6mm) deep, usually radiating laterally from the center in an angular pattern.

The deeper fissures are subject to accumulation of food materials and bacteria that may produce an erythematous and sensitive tongue. In some patients, the dorsal tongue may also be somewhat atrophic with a reduction in filiform papillae. Unless the tongue becomes symptomatic or mouth odors develop, treatment usually is not indicated. Some relief may be obtained by gently removing food residue from deep fissures with a soft brush.

Chronic Ulcers

Chronic tongue ulcers differ from ulcers in other parts of the mouth, because they tend to remain relatively unchanged for long periods. they are commonly found on the middle and posterior third of the lateral borders of the tongue, where each appears as a shallow ulceration surrounded by a raised rolled border of fibrous tissue and an outer wide zone of induration .These non healing indurated lesions are easily mistaken for squamous cell carcinomas, which commonly occur in the same area and can have a similar appearance.

Management of chronic tongue ulcers can be demanding, because identification of the irritating factors can be difficult.

If a broken cusp, fractured restoration, or interfering denture clasp can he identified and corrected, healing may take place. In many cases, injury is the result of lack of tongue coordination during mastication caused by prescribed medication or a systemic condition such as Parkinson disease or a stroke that involves the cranial nerves. In other cases, the tongue may be enlarged because of amyloidosis, acromegaly, hypothyroidism, hemangioma, lymphangioma, or allergic reactions. In some denture wearers, malpositioned posterior teeth on the denture base may be the contributing factor.

It is not uncommon for an ulcer to remain unhealed even after correction of the predisposing factors. This is thought to occur because of the presence of the large and continually active tongue muscles that are close to the epithelial surface.

The normal constant motion of the tongue prevents re- epithelialization over the defect.