

Deceptive Terminologies used for Oral Lesions: A Review

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ABSTRACT

Introduction: There is vast literature regarding the different terminologies used in oral pathology. The nomenclature of the lesion guides the physician/surgeon regarding the behavior and thereby in the treatment planning. However, there are lots of misnomers which are misleading to the surgeon, thereby leading to over or under treatment of that pathology. Therefore, it is of utmost importance to use precise terminology that may deliver a clear message to the operating surgeon and helpful in detecting the prognosis of the disease. These misnomers emerged largely due to lack of precise understanding of underlying etiology or histopathological features and imprecise use of nomenclature to designate a disease. Herein, we have discussed few such common terminologies used for oral lesions which are deceptive.

Objective: To discuss commonly used terminologies used for oral lesions, which are deceptive or misleading to the surgeon.

Materials and methods: Data were obtained and analyzed from previously published literature and electronic database searches of relevant published literature from PubMed and Google Scholar.

Conclusion: Nomenclature usually reflects the basic underlying pathology or the name of the person who coined that terminology. Here we tried to discuss commonly used terminologies used for oral lesions which are deceptive or misleading to the surgeon, thereby leading to over or undertreatment of that pathology. Therefore, it is of utmost importance to use precise terminology which delivers a clear message to the operating surgeon and also helpful in detecting the prognosis of the disease.

Keywords: Deceptive; Misnomer; terminology.

How to cite this article: Thakur A, Tupkari JV, Agrawal R, Siwach P. Deceptive Terminologies used for Oral Lesions: A Review. *Oral Maxillofac Pathol J* 2019;10(1):18-21.

Source of support: Nil

Conflict of interest: None

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INTRODUCTION

Oral pathology is an ever-evolving branch of medicine. A lot of research is under progress and/or forthcoming to understand the basic pathology of various diseases. As it is said, "change is the only constant", so it is with the different terminologies used for oral lesions. With the unfolding of newer concepts, the older ones are challenged. This leads to changes in terminologies associated with diseases that were used previously to describe their characteristics. Further, more confusion is created due to the usage of multiple names for a single lesion. Numerous terminologies in oral and maxillofacial pathology are deceptive in nature due to being imprecise and not completely par with the description of the disease.

Disease terminology should be simple, descriptive, and in accordance with the newer information and knowledge. This will help in better understanding and thus, planning of treatment by the surgeon and also in detecting prognosis of the pathology. Thus, the aim of this review article is to discuss some of the commonly used deceptive terminologies used for oral lesions which are misnomers and are not justifiable as per the description of the disease.

Deceptive Terminologies used for Oral Lesions:

"What is in the name" and "Don't judge a book by its cover"

These phrases are apt for deceptive terminologies as the meaning of these expressions suggest that the name of the lesion does not justify their underlying pathology. For discussion, these terminologies are categorized into five groups, i.e. developmental, reactive, infectious, neoplastic and miscellaneous.

Developmental

- *Ankyloglossia*: Ankylose, in Greek means "bent or crooked". However, in ankyloglossia, tongue is not bent but there is fusion (partial or total) of ventral surfaces of tongue to the floor of mouth.¹
- *Dens in dente*: Dens in dente or Dens invaginatus is a developmental anomaly affecting the shape of tooth. It is a result of invagination of inner enamel epithelium during development. Sometimes, depending upon the extent of the invagination, radiographically it may show tooth within the tooth appearance. However, it is a single tooth and not tooth within a tooth as the name implies.^{2,3}

- *Enameloma*: Enameloma is a developmental anomaly, mostly seen in furcation area of molars, formed due to activation of remnants of HERS. However, suffix -oma represent tumor, thereby confusing this entity with a neoplasm.⁴
- *Ectodermal dysplasia*: It includes a very rare heterogeneous group of more than 150 disorders of skin and its appendages, mainly involving hair, teeth, nails and sweat glands. It is a misnomer because the ectoderm is hypoplastic and not dysplastic (i.e., cytological atypia of epithelium) and also the term dysplasia is used for epithelium.⁵
- *Focal dermal hypoplasia (FDH)*: It is an uncommon genetic disorder characterized by distinctive skin abnormalities and a wide variety of defects that affect the eyes, teeth, skeletal, urinary, gastrointestinal, cardiovascular and central nervous system. The name suggest hypoplasia of dermis but skin lesions evolve as accumulations of fat.³
- *Fissural cyst*: It was thought that some cysts of the jaws developed from epithelium that became entrapped along embryologic lines of closure (fissures), that's why named so. However, current belief is that epithelial entrapment does not occur in these sites during embryogenesis. As a result some of the previously held concepts of cyst formation have been modified, and terms such as "globulomaxillary cyst" and "median mandibular cyst" have been largely abandoned.^{6,7}
- *Median rhomboid glossitis*: The condition is due to persistence of the tuberculum impar on the dorsum of the tongue, resulting from failure of the two lateral lingual elevations to completely submerge it before fusing with each other. It appears as a reddish, depapillated, raised, rounded or ovoid smooth, painless elevation situated on the dorsum of the tongue anterior to the foramen caecum. The term "median rhomboid glossitis" is a misnomer, since it is rarely rhomboidal in outline and is not an inflammatory condition but developmental and superimposed with inflammation. The erythematous clinical appearance; moreover, is due primarily to the absence of filiform papillae, rather than to local inflammatory changes.^{2,3}
- *Stafne bone cavity/Static bone cyst/Lingual salivary gland depressions*: A developmental mandibular salivary gland defect (also known as static bone cyst, static bone defect, Stafne bone cavity, latent bone cyst, latent bone defect, idiopathic bone cavity, developmental submandibular gland defect of the mandible, aberrant salivary gland defect in the mandible, and lingual mandibular bone concavity) is a deep, well-defined depression in the lingual surface of the posterior body

of the mandible. The lesion, usually asymptomatic and discovered during routine radiographic examination, appears as an ovoid radiolucency, generally situated between the mandibular canal and the inferior border of the mandible, just anterior to the angle. However, depression of the submandibular gland will also create a well-demarcated radiolucency in the posterior mandibular body below the mandibular canal outline. Such radiographic pictures in the past have been termed Stafne bone cysts, an obvious misnomer and misleading term.^{2,3,6}

Reactive

- *Drug-related gingival hyperplasia*: Drug-related gingival hyperplasia refers to an abnormal growth of the gingival tissues secondary to use of a systemic medication. The term is a misnomer because neither the epithelium nor the cells within the connective tissue exhibit either hyperplasia or hypertrophy. The increased gingival size is due to the production of an increased amount of extracellular matrix, predominantly collagen. Therefore, several authors designate the alteration as medication-associated gingival enlargement or gingival overgrowth.³
- *Fibroma*: Suffix 'oma' actually reflects a tumor while most authors consider it as a reactive lesion and not true neoplasm. The term 'fibrous hyperplasia' seems more appropriate rather than fibroma.⁸
- *Acellular fibroma*: As collagen fibers are formed by fibroblast, there can be no fibers without fibroblast. Thereby, hypocellular fibroma is more suitable terminology rather than acellular fibroma.⁴
- *Cellular fibroma*: Fibroblast is a must for the synthesis of fibres, therefore no fibroma can be without cells. Hence, term 'hypercellular fibroma' is more apt for this disorder.⁴
- *PGCG*: Peripheral giant cell granuloma is a relatively common tumor-like growth of the oral cavity, arising from the connective tissue of the gingiva, periodontal ligament or mucoperiosteum.^{2,3} The term "peripheral giant cell reparative granuloma" was proposed by Bernier & Cahn.^{3,4} However, the lesion does not appear to be truly a 'reparative' one, term reparative has been deleted. Also, it is not a true granuloma, therefore, 'peripheral giant cell lesion' is a more appropriate terminology.^{2,3,9}
- *Pyogenic granuloma*: It is a misnomer since the condition is neither associated with pus (pyogenic or pus producing bacteria) nor a granuloma in true sense. The term also suggest infectious etiology but it is an exuberant tissue response to local irritation.³ Granuloma is the focus of chronic inflammation

consisting of a microscopic aggregation of macrophages that are transformed into epithelioid cells, surrounded by collar of mononuclear leucocytes, principally lymphocytes and occasionally plasma cells. This picture of granuloma is not seen in pyogenic granuloma.^{2,3,8,10}

Infectious

- *Malignant pustule/Anthrax*: The skin of the arms, face, or neck is the common site for the initial lesion, the so-called 'malignant pustule.' This term is a misnomer since the lesions are neither malignant nor do they contain pus.¹¹
- *Candidiasis*: Term 'candidiasis' is used for mycotic infection caused by candida. However, suffix 'iasis' is used for infections of helminthic and protozoal origin while -osis is used for fungal infection. Therefore, 'candidosis' is more appropriate.¹
- *Cellulitis*: The term 'cellulitis' denotes inflammation of cells, however, the process is not an inflammation of the cells but an acute condition in which purulent exudate, usually accompanied by virulent forms of bacteria, involves the fascial planes between the bundles of facial and perioral muscles.⁷
- *Herpangina*: Herpangina is a misnomer because it is not caused by a herpes virus as the name implies. It is transmitted by inhalation of airborne droplets or by contacts with saliva containing coxsackie virus A.⁷
- *IM*: Infectious mononucleosis (IM) is an infection commonly caused by the Epstein-Barr virus. In IM some of the lymphocytes will be extremely large, mimicking monocytes, hence the term mononucleosis is used which is a misnomer because the cells are actually altered lymphocytes. Some will appear atypical, is a hallmark of the disease. A 50% absolute lymphocytosis with 10% atypical lymphocytes is diagnostic.^{2,6}

Neoplasm

- *Adenomatoid Odontogenic Tumor*: Word 'adeno' is used to represent glandular tissue, however, AOT is an odontogenic tumor. As it shows duct-like structures histopathologically, it was thought to be of salivary gland in origin, so the term adenomatoid odontogenic tumor was used.¹²⁻¹⁴
- *Ameloblastoma*: Ameloblastoma is benign epithelial odontogenic tumor. The word 'ameloblastoma' depicts tumor of ameloblasts. However, along with ameloblast, other cells of enamel organ are also present in the tumor. Moreover, the cells in ameloblastoma are not true ameloblast but are ameloblast-like. Another term for ameloblastoma is adamantinoma. The word 'admantin' means enamel but in

ameloblastoma enamel formation does not occur. Thus it is also a misnomer.¹²

- *Melanoameloblastoma/Retinal Anlage Tumor*: Melanoameloblastoma is a term once applied to the melanotic neuroectodermal tumor of infancy. Throughout the 1950s and 1960s, many jaw tumors were labeled as ameloblastomas or as variants of an ameloblastoma on the assumption that a jaw tumor is a type of ameloblastoma until proven otherwise. Like ameloblastomas, the melanotic neuroectodermal tumor of infancy grows to impressive sizes, and because odontogenic epithelium is sometimes trapped within these tumors, it is easy to understand how they could have been interpreted as melanin-containing ameloblastomas. Similarly, the term retinal anlage tumor emerged through an effort to explain the presence of a large number of pigmented cells. The pigmented cells of the retina presented an obvious, convenient, and nearly singular source of pigment, lending some credibility to the concept that this tumor arose from retinal cell precursors. Lately, melanotic neuroectodermal tumor of infancy has taken the place of these terms because it more accurately reflects its origin from neural crest remnants, more densely located in the anterior maxilla and more numerous during infancy, after which these rests involute.^{2,6}
- *Granular cell myoblastoma*: First described by Abrikosoff in 1926, who named it 'myoblastenmyome'. Other names are granular cell myoblastoma, granular cell schwannoma, myoblasticmyoma. The histogenesis of this lesion has long been debated. Originally, it was believed to be of skeletal muscle origin and was, therefore, named as granular cell myoblastoma. However, more recent investigations points toward a derivation from Schwann cells (i.e., why called as granular cell schwannoma) or neuroendocrine cells.^{2,3,6}
- *Pleomorphic adenoma (Mixed tumor)*: The coexistence of apparently epithelial and mesenchymal elements gave rise to the synonym "mixed tumor". The term mixed tumor of salivary gland does not imply origin from cells of more than one germ layer; it is simply used as a descriptive term for a neoplasm that characteristically showed combined features of epithelial and connective tissue origin. Also basic tumor pattern is highly variable, seldom are the individual tumor cells highly pleomorphic. So the term pleomorphic adenoma is also a misnomer.^{3,15-17}
- *Verrucous carcinoma*: Verrucous carcinoma has few but not all of the characteristics of a conventional malignancy (exhibiting progressive local growth and extension into underlying tissue, but lacking significant nuclear atypia and metastatic potential).

Therefore some authors are of view that word “verrucous acanthosis” is a better substitute for this pathology.¹¹

Miscellaneous

- *Lichen planus*: Oral lichen planus (OLP) is a common mucocutaneous disease in which cytotoxic CD8+ T-cells trigger the apoptosis of oral epithelial cells. Histopathologically it shows liquefactive degeneration of basal cells. Degeneration is deterioration or loss of function of the cell. In literature the term liquefactive is used along with necrosis and not degeneration. There is no mention of term liquefactive degeneration as such.^{2,3,8}
- *Hairy leukoplakia (Greenspan lesion)*: It is an asymptomatic white lesion on the lateral border of the tongue, unilaterally or bilaterally, with indefinite boundaries and a flat, corrugated or hairy surface, that is not removable on scraping. WHO (2005) defined leukoplakia as “a white plaque of questionable risk having excluded (other) known disease or disorders that carry no increased risk for cancer.” So, leukoplakia is diagnosis of exclusion. The term ‘hairy leukoplakia’ is therefore, misleading as it is a definable lesion. Furthermore, the lesion is not premalignant in nature.^{2,3,17}
- *Fordyce’s disease/Fordyce spots/Fordyce’s granules*: The condition was originally described by Fordyce in 1896 as occurring on the lips and buccal mucosa. Fordyce’s spots are ectopically located sebaceous glands. However, their occurrence in oral mucosa is so common that the condition can hardly be considered as an abnormality.^{2,4}
- *Agranulocytosis*: Agranulocytosis means increase in agranulocytes. However, there is decrease in number of granulocytes and because of this there is relative increase in agranulocytes in comparison to granulocytes.²
- *Bisphosphonate-related osteonecrosis of the Jaws (BRONJ)/ Bisphosphonate-associated Osteonecrosis of the Jaws (BAOJ)/Osteochemonecrosis/Avascular Necrosis of the Jaws (ANOJ)*: The term avascular necrosis is incorrect as although the exposed bone becomes avascular, loss of blood supply is not the primary pathology. The key pathology is toxicity to the osteoclasts, leading to their dysfunction and death and thereby interrupting the renewal cycle of normal bone turnover. Further, the vocabulary of bisphosphonate-related osteonecrosis of the jaw (BRONJ) has been changed to medication-related osteonecrosis of the jaw (MRONJ) in 2014 to include osteonecrosis of the jaw caused by non-bisphosphonates (BPs) drugs. MRONJs are a rare drug adverse reaction associated with BPs and other antiresorptive (denosumab) and antiangiogenetic therapies.^{6,18}

- *Radiation-induced caries*: Exposure to radiation leads to increased susceptibility to dental decay, especially cervical and root caries. However, underlying pathology for development of caries is xerostomia, hence ‘xerostomia-related caries’ is a better terminology.³

CONCLUSION

Hereby, we tried to discuss commonly used terminologies for oral lesions, which are deceptive or misleading to the surgeon, thereby leading to over or undertreat of that pathology. Therefore, it is of utmost importance to use precise terminology which delivers a clear message to the operating surgeon and also helpful in detecting the prognosis of the disease.

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