ORAL DISEASES

Oral Diseases (2011) 17, 615–616 doi:10.1111/j.1601-0825.2011.1812.x

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LETTER TO THE EDITOR

Misnomers in oral pathology

Sir,

Dr Subramanyam should be warmly congratulated for undertaking the painstaking job to deal with the problem of misnomers in Oral Pathology (Subramanyam, 2010). Indeed, it is a matter of concern for all of us, but few have ever attempted to look into it, in such a meticulous way, like the author did. Speaking of terminology, and having the privilege of being Greek, please allow me two short comments, which may be of additional help to those interested in the subject.

1 In my opinion, the terms iatrogenic and ankyloglossia should not be regarded as misnomers.

The author quotes *iatrogenic* as a very good example of an etymological misadventure. He says: 'If we look at similar words, *osteogenic* (from Greek osteon = bone + gennao = I produce) means to produce bone, *chondrogenic* means to produce cartilage (from Greek chondros = cartilage), *odontogenic* to produce a tooth (from Greek odontos = tooth) rather than one derived from tooth. Likewise, *iatrogenic* literally means 'to produce a physician' (from Greek iatros = physician + gennao = I produce) rather than produced by a physician.

The correct is: From the verb gennao (= I produce) are derived genus, generation, genesis, and customary in Greek language the suffix – *γόνος* (= gonos) has only the active sense of producing and the suffix – *γενές* (= genic) has only the passive meaning of being a product or derivation of something. In modern Greek, we say *ψυχο-γενές* = *psycho-genic* [from Greek *ψυχή* = psyche + *γενές* (-genic) = derived from psyche); from the Greek word *ηφαίστειο* (= volcano) + *γενές*, we have the word *ηφαιστιο-γενές* = derived by a volcano e.g. a rock. Even in architecture, we say *κλασικο-γενές* = *classic* + *genic* = derived from classical patterns e.g. a building; also *Latino-genic* languages etc. (Babiniotis, 2008, pp. 405). Thus, iatrogenic lesions means lesions produced by the doctor. In English language, the suffix – genic can have both meanings according to the context, so the author's examples are referred to the active meaning.

Correctly, the author says that 'ankylos' in Greek means 'bent or crooked' and is the source for the term ankylosis used also for stiffness of the joints. But as the author admits naming diseases is part of our communication using words which can be understood by other members of our profession. So, the term ankylosis conveys to our colleagues the condition of fusion (partial or total) of the ventral surface of the tongue to the floor of the mouth. The term is not only used for the tongue, but also for the fusion of other mucosae for example, ankyloblepharon, ankylenteron, ankylodactylia etc. Even in the everyday use of Greek language, we say 'this man has a lot of ankyloses' meaning that he has very fixed ideas, not at all flexible (Babiniotis, 2008, pp. 55). So, as a term is successful since it correctly describes the lingual condition.

2 I suggest to add in the list of misnomers two 'high-profile' oral conditions such as candidal leukoplakia and oral hairy leukoplakia. In all previous scientific definitions, the term leukoplakia is reserved only for a white patch or plaque that cannot be characterized clinically or pathologically as any other disease with known causes (Warnakulasuriya *et al*, 2007). Both conditions have identifiable causative agents such as *Candida* (Sitheeque and Samaranayake, 2003) and *Epstein-Barr Virus* (Triantos *et al*, 1997) respectively, and although the former might have a risk (not clearly defined) for malignant transformation, the latter has never been associated with such a risk.

In addition, the nevus of Ota is also a misnomer, since no nevus cells are recognized in the pathological specimens (Page *et al*, 1985).

D Triantos

Oral Medicine Specialist, Marnis 47, 10438, Athens, Greece
E-mail: dtriantos2@gmail.com

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Reply to letter from Dr Dimitris A. Triantos

Dear Sir,

I would like to appreciate the comments of Dimitris Triantos and thank him for the compliments and suggestions about my article (Subramanyam, 2010). I am grateful to have this opportunity to reply to his remarks.

If we look at most of the medical words with the suffix '~*genic*', they refer to '*producing*' rather than '*produced by*': angiogenic, carcinogenic, cariogenic, chondrogenic, chromogenic, epileptogenic, mutagenic, osteogenic, pathogenic, pyogenic, pyrogenic, spermatogenic, teratogenic, tumorigenic etc. Moreover, the combination form 'genic' is derived from the Greek 'gennaō' meaning 'I produce' (Haubrich, 2003). Hence, it is logical for person to assume that 'iatrogenic' should mean producing a physician! Only a Greek scholar would be cognizant of the semantic nuances of Greek language and I would like to thank Dimitris Triantos for pointing out active and passive forms of '~*genic*'.

Regarding ankyloglossia, the combining form 'ankyl' means 'bent or crooked'. For example Ankylostoma is [*ankyl*~ + Greek *stoma* 'mouth'] is a genus of Nematode parasites, including the hookworms. These 'hook' into the mucosa by means of their 'crooked' mouth (Haubrich, 2003). Hence, the term 'ankyloglossia' *literally* means 'bent or crooked tongue'. Though ankyloglossia, ankyloblepharon, ankylenteron, ankylodactylia are commonly used and help in communication, one cannot disregard the fact they are misnomers, from etymological point of view.

There is considerable ambiguity in the interpretation and use of the term leukoplakia. Etymologically, the prefix '*leuko*' or '*leuco*' is derived from Greek which means 'white, light, brilliant or clear'. The suffix '*plakia*' is derived from Greek 'plakoeis' which means 'flat, broad' (Haubrich, 2003). Hence, '*leukoplakia*' literally means a 'white patch'. It is a clinical term and does not imply a specific histopathologic tissue alteration (Neville *et al*, 2009). *Oral* leukoplakia is a potentially malignant disorder and its definition has changed the since the first WHO description in 1978. In the recent article (also quoted by Dimitris Triantos in his letter) Warnakulasuriya *et al* (2007) have observed that leukoplakia should be used to recognize white plaques of questionable risk having excluded (other) known diseases or disorders that carry no increased risk for cancer like white sponge naevus, frictional keratosis, morsicatio buccarum, lichen planus [plaque type], lichenoid reaction and oral hairy leukoplakia. The phrase '*that cannot be characterized clinically or pathologically as any other disease with known causes*' is no longer present in the current definition.

In case of candidal leukoplakia, it has not been established whether this yeast produces dysplasia or secondarily infects previously altered epithelium. Moreover, tobacco smoking predisposes patient to develop candidiasis. In some of these cases, lesions disappear or become less extensive or less severely dysplastic after antifungal therapy (Neville, 2009). Hence, the term *candidal leukoplakia* merely signifies oral leukoplakia with presence of candidal infection and that candida is significant part of the pathogenesis. Therefore, I doubt whether we should consider *candidal leukoplakia* as a misnomer. On the other hand, oral hairy leukoplakia is not a subtype of *oral* leukoplakia, and its nomenclature describes its clinical appearance. Its usage, undeniably, causes confusion and can be included as misnomer.

RV Subramanyam

Drs Sudha and NageswaraRao Siddhartha Institute of Dental Sciences, Chinoutpalli, Gannavaram, 521 286 Andhra Pradesh, India.
E-mail: subrarv@gmail.com

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