



EXTENSIVE PHYSIOLOGIC PIGMENTATION OF TONGUE

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Introduction:

Pigmented lesions are commonly found in the oral cavity. Such lesions may present as physiologic discoloration, manifestations of systemic diseases or malignant neoplasms, therefore an understanding of mucosal pigmentation is important. Oral pigmentation may be exogenous or endogenous in origin. Exogenous pigmentation is due to foreign body implantation in the oral mucosa while endogenous pigments primarily include melanin, hemoglobin and carotene. Most of the oral pigmentations are physiologic [1-3]. We report to you two cases of physiologic tongue pigmentation.

Case Report 1:

A 31 year old female patient reported to us with the chief complaint of multiple carious teeth which she wanted restored. She also wanted an opinion regarding her discolored tongue. The patient was asymptomatic and her past medical and dental history was not significant. The pigmentation had been on the tongue since many years with no increase in area or change in colour. On examination it was observed that a smooth black pigmentation was present on the dorsal surface of the tongue covering almost the entire dorsal surface (Fig 1). No other pigmented lesion was seen intraorally or extraorally and the systemic examination was normal. After a thorough evaluation of the patient's history, clinical findings, local and systemic examination a diagnosis of physiologic melanin pigmentation was made. However the patient was advised to follow-up every 6 months. There has been no change in the condition since 1 year.



(Fig 1) Smooth black pigmentation present on the dorsal surface of the tongue.

Case Report 2:

A 37 year old female patient reported to us with the complaint of a carious tooth which she wanted restored and of brownish discolourations over the dorsal surface of the tongue. The pigmentations were first discovered by her around 15 to 20 years back and have been of the same size and colour since then. The patient has been asymptomatic and the past history was not significant. The systemic examination was normal although the patient was an occasional tobacco chewer. On examination it was observed that the tongue had brown pigmentation covering the entire dorsal surface with small patches of normal pink colour in between (Fig 2). After a thorough evaluation of the patient's history, clinical findings, local and systemic examination a diagnosis of physiologic melanin pigmentation was made. The patient was advised to follow-up every 6 months. There has been no change in the condition since 1 year.



(Fig 2) Brown pigmentation present on the dorsal surface of the tongue

Discussion:

Oral mucosa is not uniformly colored and variations may be observed in various physiological and pathological conditions. Pigments associated with mucosal discoloration can be classified as endogenous (e.g melanin) and exogenous (e.g. metals). Melanin is the determinant for the normal colour of skin, mucosa etc. Various stimuli such as trauma, hormonal changes, medication and radiation may result in an increased production of melanin causing changes in the colour. Oral melanin pigmentation is usually limited to the keratinized mucosa and is usually physiologic. Occasionally neoplastic lesions may develop. Benign lesions include ephelides (freckles), lentigo and melanotic macules. Neoplastic lesions include nevi (usually benign) and melanomas that may develop anywhere in the oral cavity, have a poor prognosis and are associated with a high mortality rate. Oral melanin hyperpigmentation has been associated with habitual tobacco smoking. The development of melanin pigmentation caused by smoking is known as smoker's melanosis. Intraoral melanin pigmentation is the result of a physiologic process and does not require any intervention. However, if it is esthetically unappealing and is a serious concern for the patient it can be treated pharmacologically as well as surgically. Intraoral pigmentation treatment has seen very little success over the years when treated pharmacologically and is usually followed by recurrence. Surgical techniques for the elimination of melanin gingival pigmentation include free gingival grafts, gingivectomy, de-epithelialization, laser and cryosurgery. In both our cases as the patients were not concerned with esthetics and were unwilling for biopsy so no treatment was initiated. However, the patients were advised regular checkups [1-9].

Conclusion:

Whenever a patient reports to us with intraoral pigmentation, a detailed history followed by extraoral and intraoral examination should be done. If the lesion has increased in size or is accompanied by a positive family history, biopsy should be done to establish a definite diagnosis.

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