

Vitiligo and Oral Manifestations!!!

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Abstract

Vitiligo is a non-contagious acquired cutaneous disorder of pigmentation characterized by defined white patches of variable shape and dimensions, increasing in size and number with time. In India incidence of Vitiligo is found to be 0.5% to 2.5% and prevalence to be 0.46% to 8.8%. There are various major hypotheses for the pathogenesis of Vitiligo; which includes autoimmune, autolytic, biochemical hypothesis and neural theories. Vitiligo has a psychosocial impact and with Vitiligo especially children and females have a greater difficulty in their social relationships due to psychological depression. Depigmentation in oral cavity can be easily observed and can be guided for the treatment thereby battling against a socially distressing disorder could be possible.

Keywords: *Vitiligo; Depigmentation; Distressing Disorder; Repigmentation*

Introduction

Vitiligo is the most common depigmentary disorder of the skin and hair, resulting from selective destruction of melanocytes. It affects all age groups with no predilection for either sex. Gonul., *et al.* reported a minimum age of occurrence as 8 years and maximum, 72 years. Though worldwide in distribution, it is more common in India, Egypt and other tropical countries.

Several theories have been proposed concerning the pathogenesis of vitiligo including the autoimmune, autolytic, biochemical hypothesis and neural theories.

Autoimmune hypothesis

Here, the vitiligo occurs because of destruction of melanocytes by an immune mechanism. Most favored theory at present, supported by many recent *in-vitro* studies.

Auto-cytotoxic hypothesis

The autolytic theory stems from the belief that cytotoxic precursors in melanin synthesis accumulate and this results in cell death. All intermediates in the biosynthesis of melanin are phenols and related compounds. The excessive accumulation or production of phenolic radicals would injure or kill the cell.

Neurogenic hypothesis

The neural hypothesis proposes that norepinephrine or some other neural agent released by nerve endings may be deleterious to melanocytes. The neural theory further explains the loss of melanocytes in a segmental pattern and the abnormal sweating patterns in the involved skin.

Biochemical hypothesis

Vitiligo occurs due to over-secretion of hydrobiopterin, a cofactor of tyrosine hydroxylase, which results in accumulation of catecholamine's that in turn results in formation of reactive oxygen species in the melanocytes. These reactive oxygen species are thought to cause destruction of affected melanocytes in vitiligo patients. Risk factors include a family history of the condition or other autoimmune diseases, such as hyperthyroidism, alopecia areata and pernicious anemia.

Vitiligo most often covers numerous parts of the body and grows in a symmetrical order. There are two other types of vitiligo – local and segmental. Local vitiligo refers to the appearance of a depigmented patch on only a few areas of the body (focal vitiligo). Segmental vitiligo means that the illness will appear on only one side of the body.

Oral presentation

The Oral presentation of Vitiligo in one of the study findings by Anitha, et al. 2017 showed depigmentation of lip in 42%, buccal mucosa in 5%, labial mucosa in 5%, and palate in 8%, gingival in 2% of patients. Among the Intraoral mucosal sites Palate was found to be common, followed by labial and buccal mucosa, gingival and alveolar mucosa.

In a report of three vitiligo cases by Dummett, *et al.* he reported that, one patient had complete clinical depigmentation of all the oral tissues and another patient with history of heavy gingival pigmentation showed pink edentulous ridges at the time of examination; further, depigmentation of oral mucosa can be noted as an early feature in oral submucous fibrosis. In reverse smoking the palatal changes can show areas of depigmentation.

Diagnosis

An ultraviolet light can be used in the early phase of this disease for identification and to determine the effectiveness of treatment. Skin with vitiligo, when exposed to a black light, will glow blue. In contrast, healthy skin will have no reaction.

Treatment

There is no cure for vitiligo but several treatment options are available. Treatment options such as Narrowband Ultraviolet B (NB-UVB), Targeted Phototherapy, Excimer laser, epidermal cell transplantation and melanocyte culture transplants have all revolutionized the management of this psychologically devastating disease.

Conclusion

Patients having both vitiligo and melasma have a significantly better prognosis for Repigmentation on the face and limbs with narrow-band UVB compared with patients with vitiligo alone; the vitiligo-melasma patients achieve Repigmentation much earlier with a greater level of repigmentation.

Vitiligo lesions presenting as skin depigmentation may also show oral mucosal depigmentation with lip and palate being the most common sites. Sometimes oral depigmentation may be the first indicator of vitiligo which may manifest in unnoticeable areas. In such case, dental surgeons can create awareness about vitiligo. So educating patients regarding oral depigmentation and possibility of occurrence in other parts of body will help in the earlier commencement of treatment, thereby battling against a socially distressing disorder could be possible.

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