Introduction

Vitiligo or leukoderma is a skin disease with a worldwide prevalence ranging from 0.5% to 4%
Characterized by partial or complete loss of pigment-producing melanocytes within the epidermis or mucosa
Clinical lesions are asymptomatic, flat, well-demarcated macules and patches of pigment loss; their size varies from few to several centimeters, which may or may not be surrounded by macroscopic hyperpigmentation
Most noticeable in darkly pigmented individuals
Vitiligo has been classified into three types, focal, generalized, and segmental¹

Etiopathogenesis

i. Genetics
Vitiligo is a typical polygenic multifactorial disorder, involving numerous different susceptibility genes (HLA)(PTPN22)(CTLA4)(TYR)(TGFBR2)(UVRAG)(NLRP1) and (SLEV1) on chromosome 17p13
A linkage signal in systemic lupus erythematosus in generalized vitiligo²

ii. Oxidative Stress
Vitiligo patients have an intrinsic defects that reduce the capacity of melanocytes to mitigate cellular stress ROS

iii. Environment
An exposure of phenolic and catecholic chemicals found in dyes, resins and leather may play a central role in disease onset

iv. Immunity
Tyrosine hydroxylase (TH) antibodies(MCHR1) antibodies, IgM and IgG, anti-thyroglobulin antibodies and anti-thyroid antibodies. Cytotoxic CD8+ T cells are responsible for the destruction of melanocytes³

Histopathology

Very mild or no pigmentation in the epithelium
Epidermal vacuolization
Loose fibrous connective tissue with no evidence of inflammatory cells
Melanocytes did not show immunoreactivity for HMB45 antibody⁴

Gingival Vitiligo

The incidence of vitiligo in the gingiva is rare
It may occur only in the gingiva (Localized), or it may be an effect of generalized vitiligo
Vitiligo of the gingiva could result in cosmetic debility, which can in turn affect the mental status of the patient⁴

Conclusion

Vitiligo is a common pigmented disorder, the melanocytes which produce melanin pigments become inactive as a result of genetic and environmental factors, oxidative stress, innate and adaptive immunity Vitiligo can affect the gingiva and other oral mucosa

Reference

- R Spritz 2011. The genetics of vitiligo
- Rashighi, M., & Harris, J. 2017 Vitiligo pathogenesis and emerging treatments