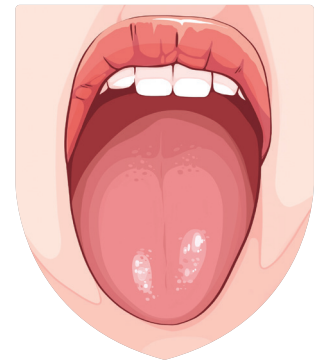


# OPMD



**Oral Potentially Malignant Disorders (OPMD) are a group of oral conditions with an increased risk of malignant change.**

**Prevalence:** 4.47% worldwide with a male predominance.<sup>1</sup>

## Classification:<sup>2</sup>

1. Oral Leukoplakia: Predominantly white lesion that cannot be rubbed off.<sup>3</sup> Rate of malignant transformation (RMT) 0.13-34%;<sup>4</sup> (Figure 1.1).
2. Erythroplakia: Predominantly red lesion that cannot be rubbed out (increased chance of dysplasia). **High risk lesion (Figure 1.2).**
3. Proliferative Verrucous Leukoplakia (PVL): Has a verrucous clinical appearance in multiple areas of the mouth (multifocal). Diagnosed in retrospect. Very difficult to manage and may show hyperkeratosis, Dysplasia and /or oral squamous cell carcinoma. **High risk lesion (Figure 1.3).**
4. Oral Submucous Fibrosis: Associated with betel quid chewing and more prevalent in India, but with changing world populations is more frequently present in New Zealand. It has been attributed to both submucosal and muscle fibrosis (difficulty of mouth opening).
5. Oral Lichen Planus (OLP) and lichenoid lesions (OLL): A chronic mucocutaneous disorder of stratified squamous epithelium of uncertain aetiology. An overall RMT of 1.40% (1.37% for OLP and 2.43% for OLL).<sup>5</sup>
6. Palatal lesions of reverse smokers
7. Oral lupus erythematosus
8. Dyskeratosis congenita
9. Actinic cheilitis -(Figure 1.4)
10. Oral graft versus host disease

## Disorders with limited evidence for malignant transformation

11. Oral epidermolysis bullosa
12. Chronic hyperplastic candidosis
13. Exophytic verrucous hyperplasia/Oral verrucous hyperplasia

by **Dr Ajith Polonowita**  
University of Otago  
Head of Discipline,  
Oral Medicine

**Dr Simon Guan**  
University of Otago  
Oral Medicine Consultant



# column

## oral medicine

### Risk Factors:<sup>6</sup>

1. Genetic including mutations
2. Smoking, including Tobacco and Marijuana (vaping? No evidence yet)
3. Alcohol
4. Ultraviolet exposure
5. Human papillomaviruses 16
6. Advanced age
7. Female gender
8. Site of the lesion (high-risk sites are the ventral tongue, floor of mouth, retromolar trigone, oropharynx, and lower lip).

**Diagnosis:** Clinical history, picture and histopathology (including DNA ploidy)

### Management:<sup>7</sup>

1. Identify and modify risk factors and lifestyle factors (see above risk factors)
2. Intervention: Excision (scalpel or laser) (especially for erythroplakia, and leukoerythroplakia), laser ablation and cryotherapy (do not provide a specimen for histopathology), and photodynamic therapy
3. Medical intervention or chemoprevention, including retinoids, Vitamin A, Carotenoids, green tea extracts, black raspberry, Chinese herbs, Bowman-Birk inhibitors, NSAIDs, Bleomycin, Erlotinib and Curcumin (does not have enough evidence base).
4. Regular review: Inspect with an eye, velescope (adjunct only), and/or re-biopsy



Figure 1.1: Leukoplakia



Figure 1.2: Erythroplakia



Figure 1.3: Proliferative Verrucous Leukoplakia



Figure 1.4: Actinic Cheilitis

### REFERENCES

1. Mello FW, Miguel AFP, Dutra KL, Porporatti AL, Warnakulasuriya S, Guerra ENS, et al. Prevalence of oral potentially malignant disorders: A systematic review and meta-analysis. *J Oral Pathol Med.* 2018;47(7):633-40.
2. Warnakulasuriya S, Kujan O, Aguirre-Urizar JM, Bagan JV, González-Moles MÁ, Kerr AR, et al. Oral potentially malignant disorders: A consensus report from an international seminar on nomenclature and classification, convened by the WHO Collaborating Centre for Oral Cancer. *Oral Diseases.* 2021;27(8):1862-80.
3. Lee KH, Polonowita AD. Oral white lesions: pitfalls of diagnosis. *Medical Journal of Australia.* 2009;190(5):274-7.
4. Warnakulasuriya S. Oral potentially malignant disorders: A comprehensive review on clinical aspects and management. *Oral Oncol.* 2020;102:104550.
5. Giuliani M, Troiano G, Cordaro M, Corsalini M, Gioco G, Lo Muzio L, et al. Rate of malignant transformation of oral lichen planus: A systematic review. *Oral Dis.* 2019;25(3):693-709.
6. Speight PM, Khurram SA, Kujan O. Oral potentially malignant disorders: risk of progression to malignancy. *Oral Surg Oral Med Oral Pathol Oral Radiol.* 2018;125(6):612-27.
7. Kerr AR, Lodi G. Management of oral potentially malignant disorders. *Oral Diseases.* 2021;27(8):2008-25.