

Oral leukoplakia: an update for dental practitioners

Précis: This narrative review presents an evidence-based overview of oral leukoplakia, discussing its diagnosis and treatment, and the challenges involved in its management.

Abstract

Statement of the problem: Oral leukoplakia is a common mucosal pathology frequently encountered in general dental practice, which belongs to a group of conditions known as oral potentially malignant disorders. This inferred risk of progression to oral squamous cell carcinoma (OSCC) warrants an understanding of the aetiology of this condition, its clinical presentation, and how patients diagnosed with oral leukoplakia are managed in both general and specialist care practices.

Purpose of the review: To update the dental practitioner on the current understanding concerning the diagnosis and management of oral leukoplakia.

Methods: A search strategy was conducted in the MEDLINE, Ovid and Embase databases, and the Cochrane Library. No time limit was applied. The search results were limited to those in the English language.

Discussion: The aetiology for oral white patches can range considerably from innocuous frictional keratosis to OSCC. A thorough history and clinical examination should precede referrals to secondary care, with the elimination of risk factors a priority. In cases where white patches are suspicious, or remain despite managing known risk factors, prompt referral to a specialist centre is warranted. Despite the extent of research in this field, controversy remains in oral leukoplakia management and there is currently no agreed international consensus. Therefore, management is primarily governed by local contemporaneous guidelines, and is based on the most reliable predictor of malignant transformation: the grade of dysplasia. Despite various treatments, oral leukoplakia may still undergo transformation to malignancy.

Conclusions: General dental practitioners (GDPs) are the healthcare practitioners best placed to detect oral leukoplakia on a daily basis, given the volume of patients encountered from various backgrounds. An understanding of the causes and presentation of oral leukoplakia will allow GDPs to recognise this entity in practice, and facilitate further management and treatment in a bid to prevent transformation.

Journal of the Irish Dental Association February/March 2025;71(1):34-40



Dr Brian Maloney
BA BDentSc PCD
Non-Consultant Hospital
Doctor
Dublin Dental University
Hospital
Trinity College Dublin

Dr Sheila Galvin
BDentSc MFD MB BAO BCh MRCPi FFD
RCSI (OM) FRCSEng (OM)
Assistant Professor/Consultant in Oral Medicine
Division of Oral and Maxillofacial Surgery, Oral
Medicine, and Oral Pathology
Dublin Dental University Hospital
Trinity College Dublin

Prof. Claire M. Healy
BDentSc MB BCh BAO FDS RCS Eng (OM),
FFD RCSI, PhD
Professor/Consultant in Oral Medicine
Division of Oral and Maxillofacial Surgery, Oral
Medicine, and Oral Pathology
Dublin Dental University Hospital
Trinity College Dublin

Corresponding author: Dr Brian Maloney BA BDentSc PCD

E: Brian.Maloney@dental.tcd.ie

An inflammatory odontogenic cyst (unusual case): case report

Précis: Inflammatory odontogenic cysts may develop from the presence of dental anomalies such as enamel pearls or cervical enamel extension.

Abstract

Different types of inflammatory lesions, such as odontogenic cysts, can affect the oral and maxillofacial regions. The conventional aetiology of inflammatory periapical lesions is triggered by dental caries or traumatic injury to the teeth, leading to the death of the dental pulp and subsequent bacterial infiltration of the periapical area. In rare cases, inflammatory odontogenic cysts may originate from non-inflammatory causes, such as the presence of enamel pearls located within the furcation of teeth with multiple roots. This case report illustrates a case of an asymptomatic inflammatory cyst associated with the upper left first molar in a young female patient. The cyst developed without any obvious clinical explanation and appeared in a typical sound tooth without evidence of pathology-related conditions. The radiographic findings demonstrated a notably aggressive nature not atypical for inflammatory cysts. The cyst expansion resulted in significant displacement of the adjacent upper left second molar, causing it to deviate from its original position within the dental arch. Additionally, the inferior border of the maxillary sinus was displaced in a superior direction. The diagnosis of non-specific inflammatory cyst was confirmed via histopathological examination. In this particular case, it is important to acknowledge that no singular factor is attributed to the cyst development. However, it is worth noting that the tooth in question is associated with enamel pearls, which have been discussed in the field of oral and maxillofacial pathology as a relatively uncommon cause of inflammatory cyst development.

Key words: Inflammatory cyst, odontogenic cyst, enamel pearls, cervical enamel extension.

Journal of the Irish Dental Association February/March 2025;71(1):41-45



Ahmed Ata Alfurhud
BDS MMedSci Oral Pathology
DClinDent Oral Surgery
Oral Surgery, Institute of Dentistry, Faculty of Medicine and Dentistry,
Queen Mary University of London, UK
Institute of Dentistry, Al Jouf University,
KSA

Corresponding author: Ahmed Ata Alfurhud

Sheelah Harrison
BDS PhD
Consultant Oral Surgery
Institute of Dentistry, Faculty of Medicine and Dentistry
Queen Mary University of London
UK

E: ha21916@qmul.ac.uhk

Mohammed Alshammari
BDS DClinDent Oral Surgery
Oral Surgery, Institute of Dentistry, Faculty of Medicine and Dentistry,
Queen Mary University of London
UK
Prince Sattam Bin Abdulaziz University,
KSA.