

Oral and Heart Health: The Urgent Call for Early Dental Referrals

To the Editor,

Oral health is vital in preventing systemic diseases and maintaining overall well-being. Globally, 3.5 billion people suffer from oral diseases, with dental caries being the most prevalent health condition. Although it is largely preventable through proper oral hygiene, dental caries still affects 520 million children worldwide.¹ If untreated, it can cause serious complications such as periapical abscesses, fistulas, and apical fenestrations linked to endodontic infections (Figure 1a-e).

Beyond these visible clinical effects, oral infections can negatively impact general health by allowing oral microorganisms and their byproducts to enter the bloodstream, a condition known as bacteremia. Periodontal bacteria and their byproducts can directly invade periodontal tissues and subsequently spread throughout the body. This risk is particularly concerning for patients with heart disease, as bacteremia can exacerbate their condition and increase complications. The most effective way to prevent bacteremia is by reducing gingival inflammation and minimizing the accumulation of periodontal bacteria through proper oral hygiene practices.²

Maintaining optimal oral health is essential not only for reducing systemic health risks but also for improving overall quality of life, particularly in vulnerable populations such as children with congenital heart disease (CHD). Children with cyanotic CHD may also have an increased risk of developmental enamel defects (Figure 1f) due to hypoxia and disturbances in ameloblastic activity during enamel formation, making them more susceptible to dental caries.³ Beyond pain and infection due to untreated dental caries, providing dental care for children with CHD is particularly challenging, as it necessitates a delicate balance between medical and dental factors. Frequent medical treatments often lead to reduced cooperation during dental procedures, while antibiotic prophylaxis raises concerns about antibiotic resistance. Anticoagulant therapy must be managed carefully—discontinuation increases thrombus risk, while retaining an infected tooth raises the likelihood of infective endocarditis. Additionally, medications used for general anesthesia and sedation can induce arrhythmias, posing potential risks for children already susceptible to such complications. Due to these complexities, dental treatments for children with CHD are mainly performed in university hospitals, often resulting in delays in necessary care.⁴ Limited intensive care access further complicates treatment, particularly for those requiring post-anesthesia monitoring. Despite these challenges, many patients remain unaware of the crucial link between oral health and cardiovascular well-being.⁵ Unfortunately, dental visits are often seen as secondary to other medical priorities—a perception that must change to ensure comprehensive patient care.

Integrating dental assessments into routine medical check-ups could facilitate early detection of oral diseases that may contribute to heart complications. Collaboration between pediatric dentists and cardiologists is essential in developing a holistic approach to care. By advocating for early dental referrals and comprehensive health screenings, healthcare professionals can improve patient outcomes and contribute to a healthier society. To address these challenges and enhance the quality of life for children with CHD, regular cardiology evaluations and dental visits

LETTER TO THE EDITOR

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Cite this article as: Taşdemir T, Ballıkaya E. Oral and heart health: the urgent call for early dental referrals. *Anatol J Cardiol.* 2025;29(6):328-329.

DOI:10.14744/AnatolJCardiol.2025.5283



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Figure 1. Poor oral hygiene-related oral health problems in 3 patients with congenital heart diseases: gingivitis (a), untreated carious teeth and associated complications such as abscess (b), fistula (c), pulpal exposure (d), apical fenestration (e) due to endodontic infection. Developmental enamel defects (f) in a 12-year-old child with congenital heart disease.

should begin at birth. Early intervention enhances oral health while minimizing the risks associated with dental problems in this vulnerable population.

Declaration of Interests: The authors have no conflicts of interest to declare.

Funding: The authors declare that this study received no financial support.

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