

Opinion

The Relationship Between Periodontal Diseases and Psychotic Drugs: An Opinion from Current Evidence

Aous Dannan*

Department of Periodontology, Faculty of Dentistry, The International University for Science and Technology, Ghabagheb Syrian Arab Republic

***Corresponding Author:**

Aous Dannan, Professor and Head of Department of Periodontology, Faculty of Dentistry, The International University for Science and Technology, Ghabagheb Syrian Arab Republic

Received Date: 18 January, 2024; **Published Date:** 03 March, 2025

Keywords:

Periodontal Diseases; Psychotic Drugs; Chronic Inflammatory Condition; Periodontium; Mental Health Disorders.

Citation:

Dannan A (2024) The Relationship Between Periodontal Diseases and Psychotic Drugs: An Opinion from Current Evidence. Digital J Sci 2(2): 116.

Abstract

Periodontal disease, a chronic inflammatory condition affecting the supporting structures of the teeth, has been shown to have systemic implications, including potential links to mental health. Recent studies suggest a bidirectional relationship between periodontal diseases and the use of psychotropic medications. This paper reviews existing literature to elucidate the potential connections between periodontal health and psychotic drugs.

Introduction

Periodontal disease encompasses a range of inflammatory conditions affecting the periodontium, primarily the gums and underlying bone. Chronic inflammation from periodontal disease has been linked to various systemic conditions, such as cardiovascular disease and diabetes. Interestingly, emerging evidence suggests a potential relationship between periodontal health and psychiatric conditions, particularly in individuals using psychotic drugs.

Discussion

Psychotropic Medications and Oral Health

Psychotropic medications, including antipsychotics and antidepressants, are often prescribed for managing psychiatric disorders. Many of these drugs can have

side effects that influence oral health. For instance, antidepressants such as selective serotonin reuptake inhibitors (SSRIs) and antipsychotics can lead to xerostomia (dry mouth), which significantly increases the risk of periodontal disease due to reduced saliva production, impairing the mouth's ability to neutralize acids and wash away food particles.

Evidence Linking Periodontal Disease and Psychotropic Drugs

Recent research has highlighted a concerning relationship between periodontal disease and the use of psychotropic medications. A significant body of literature documents that individuals with mental health disorders often exhibit poor oral hygiene, higher rates of dental caries, and an increased prevalence of periodontal disease [1]. The mechanisms underlying this association are multifactorial; patients on antipsychotic medications may experience metabolic side effects, such as weight gain

and insulin resistance, which can contribute to increased periodontal risk through systemic inflammation.

Hu et al. (2020) [2] conducted a longitudinal study demonstrating that patients receiving long-term antipsychotic therapy exhibited a notable increase in periodontal disease indices compared to a control group without psychiatric diagnoses. They observed that these patients had higher levels of gingival inflammation and probing depth, highlighting the adverse effects of medications on periodontal health. Furthermore, additional studies have shown that the prevalence of periodontal disease is disproportionately high in patients with schizophrenia and bipolar disorder, conditions frequently treated with antipsychotics [3].

Compounding this issue, certain psychotropic drugs can impair a patient's cognitive function, further reducing their ability to maintain adequate oral hygiene. The combination of these factors highlights a bidirectional relationship where existing periodontal disease may exacerbate psychiatric symptoms, while psychotropic medications may worsen periodontal health, creating a vicious cycle.

Importantly, inflammation stemming from chronic periodontal disease has been suggested to influence neuroinflammatory processes that could impact mood regulation and cognitive function. Research posits that pro-inflammatory cytokines released during periodontal infection could cross the blood-brain barrier, thereby contributing to the exacerbation of psychiatric symptoms in vulnerable individuals [4]. This underscores the need for integrated healthcare approaches when treating patients with coexisting periodontal and mental health conditions.

Clinical Implications

The interplay between periodontal disease and psychotropic medications has significant implications for clinicians. Healthcare professionals must adopt a multidisciplinary approach to treatment, considering both oral and mental health simultaneously. Regular dental check-ups and proper oral hygiene education should be incorporated into the treatment plans for individuals on psychotropic medications.

Conclusion

The relationship between periodontal diseases and the use of psychotic drugs underscores the need for heightened awareness among healthcare providers. Understanding the implications of psychotropic medications on oral health can facilitate better management of patients' overall well-being. Future research should focus on longitudinal studies to further elucidate this relationship and develop treatment strategies that address both dental and psychiatric health.

Conflicts of Interest

No conflict of interest was declared by the authors.

Financial Support and Sponsorship

No financial support or sponsorship was received.

References

1. Kisely S, Sawyer E, Siskind D, Lalloo R (2016) The oral health of people with anxiety and depressive disorders—a systematic review and meta-analysis. *Journal of affective disorders* 200: 119-132.
2. Hu KF, Ho PS, Chou YH, Tsai JH, Lin CH, et al. (2020) Periodontal disease and effects of antipsychotic medications in patients newly diagnosed with schizophrenia: a population-based retrospective cohort. *Epidemiology and Psychiatric Sciences* 29: e49.
3. Coelho JM, Miranda SS, da Cruz SS, Dos Santos DN, Trindade SC, et al. (2020) Common mental disorder is associated with periodontitis. *Journal of Periodontal Research* 55(2): 221-228.
4. Deng Z, Li J, Zhang Y, Zhang Y (2024) No genetic causal associations between periodontitis and brain atrophy or cognitive impairment: evidence from a comprehensive bidirectional Mendelian randomization study. *BMC Oral Health* 24(1): 571.