

Keywords: Periodontal disease; Gingivitis; Periodontitis; Oral hygiene; Bacteriology; Dental plaque; Gingivitis; Tissue biology; Scagliardini's ligament; Periodontal ligament.

Introduction

Periodontal disease is a complex multifactorial disease involving the gingiva, periodontal ligament, and bone. It is characterized by the destruction of the supporting structures of the teeth, leading to tooth loss if left untreated. The primary cause of periodontal disease is bacterial infection, particularly from the genus *Aggregatibacter* and *Porphyromonas*. Other factors include genetic predisposition, smoking, diabetes, and systemic diseases like rheumatoid arthritis and heart disease.

The clinical signs of periodontal disease include bleeding on probing, gingival recession, and loosening of the teeth. The progression of the disease can be divided into three stages: gingivitis, periodontitis, and advanced periodontitis. Gingivitis is the initial stage where the gingiva becomes inflamed and bleed easily. If left untreated, it can progress to periodontitis, where the supporting tissue and bone are destroyed, leading to tooth mobility and eventually tooth loss. Advanced periodontitis is the most severe stage, characterized by extensive bone loss and significant tooth mobility.

Periodontal disease is a preventable condition. Good oral hygiene, regular dental check-ups, and a healthy diet are key preventive measures. Early diagnosis and treatment are crucial to prevent the progression of the disease and maintain dental health.

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Causes of periodontal diseases

Poor Oral hygiene: Poor oral hygiene is the most common cause of periodontal disease. Plaque accumulation on the teeth provides a breeding ground for bacteria, which can lead to inflammation and tissue destruction.

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b hi g a d ig la e ha de i a a , hich i ia e he
g m a d lead i amma i .

Tobacco use: Sm ki g a d . bacc . e ig i ca l i c ea e . he i k f e i d . al di ea e . T bacc . e . a e m e likel . de el g m di ea e , e ie ce dee e e i d . al cke , a d ha e dela ed heali g a e de al ea me ..

Hormonal changes: Hormonal changes during pregnancy include increased levels of progesterone, estrogen, and relaxin. These hormones prepare the body for labor and delivery by softening the cervix and relaxing the uterine muscles.

Medications: Some medications such as acetaminophen, ibuprofen, and aspirin can cause bleeding. Aspirin and ibuprofen should be avoided. Nonsteroidal anti-inflammatory drugs (NSAIDs) like ibuprofen and naproxen can increase the risk of bleeding. If you are taking NSAIDs, it is important to follow your doctor's instructions and take them with food or after meals to reduce the risk of stomach irritation.

Symptoms of periodontal diseases

Gingivitis: e ea lie . . age f g m di ea e, gi gi ii i
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Periodontitis: If left untreated, gingivitis can progress to periodontitis, a more severe form of gum disease. Inflammation and infection spread beyond the gingiva to affect the supporting structures of the teeth, including the bone and connective tissue. This leads to the formation of deep pockets between the teeth and the gums, which can become filled with bacteria and pus. As the infection continues, it can cause the destruction of the bone and connective tissue, leading to tooth loss.

Gingival recession: A *e i d . i i ad a c e , he g m ma*
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Bone Loss: I had a cedca e f e i d . i i, he . . i g b e
a . d. he ee h ma be de . ed, e l i g i . h m bili a d
e e al. whl .

Professional dental cleaning: Scaling and root planing

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Surgical intervention: Ad a ced e i d . Tt ma e . Re
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e f med b e i d . i ,

Lifestyle modifications: Quitting smoking, maintaining a healthy weight, and

ac ice , a d ma agi g de l i g heal h c di i ch a diabe e
a ee e al f e e i g he g e i f e i d al di ea e a d
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Ongoing maintenance: Regular dental check-ups and cleaning are crucial for maintaining good health. Professional dental cleanings remove plaque and tartar that can't be removed by brushing and flossing alone. Early intervention for dental issues like cavities and gum disease can prevent more serious problems in the future.

Conclusion

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heal hie g m a d.. ge ee h. M e .e, ad a ceme .. i de al
ech lg a d ea me m dali ie e mi i g a e .. e f
e ec i e i e .. i a d e .. ai ..

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a d heal hie li e . Le . c i i e . i i i e . he health f . g m
a d ee h , ec g i i g . ha a ib a . mile i . j . a e ec i f
ae he ic b . al a e ame . . e all ell-bei g.

References

- Yagupsky P, Peled N, Riesenber K, Banai M (2000) Exposure of hospital personnel to *Brucella melitensis* and occurrence of laboratory-acquired disease in an endemic area. *Scand J Infect Dis* 32: 31-35.
 - Baldwin CL, Parent M (2002) Fundamentals of host immune response against *Brucella abortus*: what the mouse model has revealed about control of infection. *Veterinary Microbiology* 90: 367-382.
 - Ko J, Splitter GA (2003) Molecular host-pathogen interaction in brucellosis: current understanding and future approaches to vaccine development for mice and humans. *Clinical Microbiology Reviews* 16: 65-78.
 - Yagupsky P, Peled N, Press J, Abu-Rashid M, Abramson O (1997) Rapid detection of *Brucella melitensis* from blood cultures by a commercial system. *Eur J Clin Microbiol Infect Dis* 16: 605-607.
 - Shasha B, Lang R, Rubinstein E (1992) Therapy of experimental murine brucellosis with streptomycin, cotrimoxazole, ciprofloxacin, ofloxacin, pefloxacin, doxycycline, and rifampin. *Antimicrobial Agents and Chemotherapy* 36: 973-976.
 - Prior S, Gander B, Irache J M, Gamazo C (2005) Gentamicin loaded microspheres for treatment of experimental *Brucella abortus* infection in mice. *Journal of Antimicrobial Chemotherapy* 55: 1032-1036.
 - Izadjoo MJ, Mense MG, Bhattacharjee AK, Hadfield TL, Crawford RM, et al. (2008) A study on the use of male animal models for developing a live vaccine for brucellosis. *Transboundary and Emerging Diseases* 55: 145-151.

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8. Shemesh AA, Yagupsky P (2011) Limitations of the standard agglutination test for detecting patients with *Brucella melitensis* bacteremia. *Vector Borne Zoonotic Dis* 11: 1599-1601.
 9. McFarlane PA, Bayoumi AM (2004) Acceptance and rejection: cost-effectiveness and the working nephrologist. *Kidney International* 66: 1735-1741.
 10. Okosun KO, Rachid O, Marcus N (2013) optimal control strategies and cost-effectiveness analysis of a malaria model. *Bio Systems* 111: 83-101.