Periodontal Disease

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Key points:

- Introduction
- Symptoms
- Causes and Risk Factors
- Conclusion

Introduction

Periodontal disease is a long-term chronic inflammatory disease that has multiple factors that can affect the tissues which are responsible for supporting and surrounding the teeth, including the gingiva, periodontal ligament, cementum and the alveolar bone. It begins as gingivitis, usually characterized by redness, swelling, and the bleeding of the gums and if it is left untreated, the inflammation may lead to periodontitis, which ultimately leads to destruction of deeper supporting structures.[1]



Figure 1*: Kinds of Periodontal Disease.*[10]

Symptoms

The symptoms may vary depending on the severity and stage of the condition. In early stage, commonly red, swollen, or tender gums may bleed during brushing, flossing, or eating any hard foods. As the disease progresses following symptoms may occur:

1. Persistent bad breath
2. Gum recession (teeth appear longer)
3. Pus discharge from gums
4. Painful chewing or mastication
5. Loose or shifting teeth
6. Tooth loss in severe cases



Figure 2: *Periodontal Disease.*[11]

Risk Factors

Smoking: It reduces the blood supply to the gums and makes the immune response weak and it worsens gum destruction.[2]

Osteoporosis: It reduces bone support around the teeth so there will be faster bone loss and increased tooth mobility.[3]

Poor Oral Hygiene: It leads to the accumulation of dental plaque on the teeth. These bacteria then irritate gums and trigger inflammation.[4]

Genetic factors: Some individuals inherit genes that affect immune response to the bacteria. Family history increases the risk.[5]

Hormonal Changes: Fluctuations during pregnancy, puberty, or the menstruation increases gum sensitivity to the plaques.[6]

Drugs: Certain medication can affect gums health leading to gums enlargement and reducing the saliva flow, dry mouth, and more plaque retention causing severity in gums inflammation.[7]

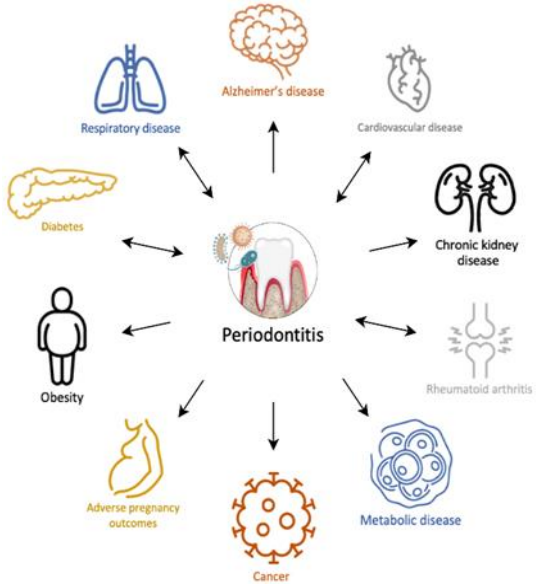


Figure 3: *A Plausible Modifiable Risk Factors.*[12]

Treatment

The treatment of periodontal disease is done stepwise, depending on the severity.

Antibiotics: Both systemic or topical antibiotics are taken. They kill or reduce the periodontal bacteria in the deep pockets.[8]

Bone Grafting: It is a surgical procedure used for the periodontal disease where it rebuilds the bone loss around the teeth, and gives support.[9]

Scaling and Root Planing: A non-surgical procedure where the plaque is removed from the tooth surface as a result the tooth surface becomes smooth to prevent bacteria re-attachment.

Oral Hygiene and Education: Patients should know the proper way of brushing, flossing, and use of the interdental brushes.

Conclusion

Periodontal disease is a chronic inflammatory condition which is mainly caused due to the dental plaque which causes gingiva destruction. But if proper oral hygiene and regular dental care is done it can be prevented and early symptoms should get immediate checkup, such actions can help to improve the dental health.

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