



Relationship Between Periodontal Disease and Heart Disease

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Abstract:

Numerous epidemiological studies have been conducted to study the link between periodontal disease (PD) and cardiovascular disease (CVD), but the results have been mixed. Because of their prevalence, coronary atherosclerosis and periodontal disease pose a severe epidemiological concern. Pathophysiological data suggests that they may share an inflammatory aetiology. The study's goal was to look at the association between periodontitis and its severity, systemic inflammation, and chosen markers of myocardial damage and heart function in individuals with an acute myocardial infarction.

Lastly, this article reviews the current state of the possible linkages between Parkinson's disease and its function as a risk factor in causing cardiovascular events throughout the previous two decades.

Introduction:

Periodontal disease, also known as gum disease, is a chronic infection of the gums and supporting tissues that can lead to tooth loss. It affects more than 50% of adults worldwide and is the leading cause of tooth loss in adults. Periodontal disease is caused by bacteria in dental plaque, which irritates the gums and causes inflammation. While the link between periodontal disease and tooth loss is well established, recent research has also shown that periodontal disease may be linked to an increased risk of heart disease. This is because the bacteria that cause periodontal disease can enter the bloodstream and travel to other parts of the body, including the heart.

What is periodontal disease?

Periodontal disease, often known as gum disease, is a persistent bacterial infection that damages the gums and teeth's supporting structures. Bacteria in dental plaque, a sticky film that accumulates on the teeth, cause it. Plaque, if not removed regularly by brushing and flossing, can harden into tartar, which can only be removed by a dental expert.[\[1\]](#)

Gingivitis is the term used to describe the very first stage of periodontal disease. While being brushed or flossed, the gums bleed readily and get red and puffy at this stage. Periodontitis, a more severe stage of the illness, can develop from gingivitis if it is not treated.[\[2\]](#) Periodontitis causes pockets to form around the teeth where the gums have pulled away, perhaps leading to an infection. A tooth loss may result if the illness gradually destroys the bone and connective tissue that support the teeth[\[3\]](#).

What is heart disease?

Heart disease, also known as cardiovascular disease, refers to a group of conditions that affect the heart and blood vessels. These conditions can include coronary artery disease, heart failure, arrhythmias (abnormal heart rhythms), and other conditions that affect the heart's structure and function.[\[4\]](#)

Coronary artery disease is the most common form of heart disease, and it occurs when the arteries that supply blood to the heart become narrowed or blocked by a buildup of plaque. This can lead to chest pain or discomfort (angina), a heart attack, or other complications

Relation between periodontal disease and heart disease:

While the relationship between periodontal disease and tooth loss is widely documented, new study suggests that periodontal disease may also be associated with an increased risk of heart disease. This is because periodontal disease germs may enter the circulation and travel to other regions of the body, including the heart.

According to several studies, those who have periodontal disease are more prone to develop heart disease than those who have healthy gums[\[6\]](#). For instance, a research in the Journal of Periodontology discovered that those who had severe periodontal disease were 4.3 times more likely to suffer a heart

attack than those who had healthy gums. Those with periodontal disease had a 19% greater chance of having heart disease, according to another study that was written up in the Journal of the American College of Cardiology.[7]

The exact mechanisms by which periodontal disease may contribute to heart disease are still being studied, but researchers believe that it may be related to the chronic inflammation caused by periodontal disease. Inflammation is thought to play a key role in the development of heart disease, and

the inflammation caused by periodontal disease may contribute to the development of atherosclerosis, a condition in which the arteries become narrowed and hardened.[8]

Periodontal disease has also been connected to other risk factors for heart disease, including as excessive blood pressure and cholesterol. A research published in the Journal of Clinical Periodontology, for example, discovered that persons with severe periodontal disease had a higher risk of high blood pressure than those with healthy gums.[9]

While the relationship between periodontal disease and heart disease is still being researched, it is evident that practising excellent dental hygiene and treating periodontal disease can improve overall health[10]. This involves brushing and flossing on a regular basis, as well as regular dental exams and expert cleanings to eliminate plaque and tartar. In certain circumstances, more extensive therapy, including as scaling and root planing or periodontal surgery, may be required to address periodontal disease.

Conclusion:

Finally, there is a growing amount of research suggesting a relationship between periodontal health and heart disease. Keeping proper dental hygiene and treating periodontal disease can improve general health and lower the chance of getting heart disease. If you are worried about your periodontal health, you should consult with your dentist or periodontist to build a strategy to keep your gums healthy and avoid periodontal disease.

References:

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