

Oral Systemic Connection

The oral cavity is a major site of chronic infection and inflammation, particularly periodontal or chronic gum diseases. The connection between the oral health and the overall systemic health is well accepted by medical and dental professional. Various organ systems are found to be closely linked to the disease entities. Many of the oral disease can have direct impact on systemic health and many a times various systemic diseases will first appears as oral signs and symptoms.

The link between the oral health and overall systemic health has been well established, such as respiratory infections caused due to the inhalation of oral pathogens.¹ The relationship between periodontal disease and type II diabetes mellitus is also well established with the evidence of its two way relationship. Prevalence and severity of periodontal disease is more in individuals with poorly controlled diabetes mellitus and poor glycemic control due to the increase in insulin resistance from infectious and chronic inflammatory periodontal disease is well evidenced by several researches.^{2,3}

Relationship between the oral infections and the adverse pregnancy outcome is also being well explored. Most of the evidence support the existence of this relationship, which indicated the risk of having preterm low birth weight baby from mothers with oral infection.⁴ Periodontitis may be a risk factor for preterm low birth weight baby due to the presence of bacterial toxins and pro-inflammatory cytokines during infection that can affect distant organs.⁵

Recent studies has indicated the clear link between the chronic periodontitis and cardiovascular disease⁶. There are different mechanisms by which an association between these two disease entities exists. It is well established fact that a chronic inflammatory infectious disease, chronic periodontitis causes a increase level of C-reactive protein, lipopolysaccharides, which are the significant markers of cardiovascular disease.⁶ Several epidemiological studies investigating the relation between infections – including dental infections – and various clinical manifestations of atherosclerotic vessel disease have been published in the last decade suggesting periodontal disease as a risk factor for coronary heart disease.^{7,8}

As most of the available literature has shown the evidence of potential link between the oral and systemic health. It can be concluded that the potential association between the oral health and overall health has been significantly emphasized in the area of research. Because oral infection including gingivitis and periodontitis is common in population, it can be account for a significant portion of the proposed infection associated risk factor of diabetes, cardiovascular disease, respiratory diseases and adverse pregnancy outcome. If oral disease is found to be a causative risk factor for these systemic disease and conditions, the patients who receive treatment for oral disease have significantly reduced the risk for these systemic diseases. If causative relationship between these two is not proven, the patient will receive benefit of treatment of oral infection. Oral infection obviously merits prevention and treatment as a health problem in itself. We can anticipate that day will come when researches will prove a more confirmatory evidence on causal relationship between the oral health and systemic health and it will establish a fact that oral health care play a key role in helping to ensure overall good health of the people.

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