

Oral Health: A Gateway to Overall Health

Impact of oral health on the overall health has emerged in 1989, and since then oral cavity has been described as a window to the general health of the patient. Various clichés “You cannot have good general health without good oral health” and “The mouth is part of the body” are indicative of oral and systemic health linkage.^[1] Oral cavity is the harbor of a diverse group of microorganisms comprising of bacteria, fungi, and viruses that play a key role in the maintenance of oral and systemic health. However, when the oral microbiota balance is altered termed as “microbial dysbiosis,” active pathogens evade the host immune response resulting in variety of systemic diseases.^[2] In 1879, Willoughby D. Miller observed a role of oral microorganisms in the development of brain abscess, pulmonary and gastric diseases and stated “oral foci of infection as a cause of systemic diseases.” The focus of infection refers to the localized area of tissue infected with microorganisms, and foci of infection may disseminate through bloodstream to organs thereby resulting in bacteremia, metastatic tissue injury, and inflammation.^[3] Various systemic diseases such as cardiovascular, respiratory, gastrointestinal, kidney, and diabetes mellitus have been linked to oral microorganisms as a potential focus of infection. Among oral diseases, a significant relationship has been elucidated between periodontal disease and increased risk of diabetes mellitus, cardiovascular, preterm low birth weight.^[1,2] In consideration to above, it is utmost important for oral health care professionals to educate patients and the general public regarding the importance of good oral hygiene and its influence on the general health.

Diabetes mellitus has become a major global illness affecting more than 171 million people worldwide, characterized by severe periodontal disease, increased susceptibility to infection, and poor wound healing. Severe periodontal disease can worsen the glycemic control in type II diabetes mellitus, and risk of developing diabetes complications of retinopathy and neuropathy becomes higher.^[4] Moreover, oral microbes, particularly *Streptococcus viridans* and *Streptococcus sanguis* have been implicated as a causative agent of bacterial endocarditis characterized by inflammation of the inner lining of the heart.^[5] Similarly, oral-derived bacteria can colonize the gut leading to impaired digestion.^[1,6]

Oral care should be an integral part of medical care in medically compromised patients suffering from chronic diseases such as human immunodeficiency virus infection and cancer.^[1,4] Furthermore, effect of medications such as antihistamines, antihypertensives, calcium channel blockers, antianxiety, antipsychotic drugs, anticoagulants, and immunosuppressants taken by the patient for systemic

diseases can adversely affect the oral mucosal tissues resulting in dry mouth, lichenoid reactions, ulcerations, candidiasis, gingival bleeding and enlargement. Oral physicians are first to encounter adverse drug reactions in the oral cavity and should take the opinion of the concerned specialist for drug dosage modification or substitution by an alternative drug.^[7]

Tobacco usage has become a public health problem, particularly among the youngsters.^[8,9] Oral health care professionals should spread public awareness of deleterious effects of tobacco consumption on both systemic and oral health. Tobacco users should be educated that smoking not only affects the lungs or other organs but can also lead to initiation and progression of life-threatening diseases.

Oral health care professionals are fore frontiers in screening of oral diseases, and in educating patients about oral-systemic health connection. Counseling of patient about optimal oral health is an effective way to make them familiar with oral signs of various systemic diseases. Patients’ perception of dental practitioner as a physician is essential for adherence to the counseling sessions and treatment compliance. Practitioners should have provocative verbal communication skills to impart comprehensive education to the patient.^[10,11] Elderly population should be provided specialized care and education for healthy aging that is to maintain functional ability in the older age. The organization of educational campaigns, audio-visual aids, slogans, educational materials, and commercial advertisements are useful in increasing awareness of the public about the significance of oral health. Oral health care professionals should use referral forms for physicians to make them aware about oral-systemic health relationship.^[12]

Now its time that oral health care professionals should increase awareness of general public about oral-systemic health connection and move toward interprofessional collaboration for understanding and management of sequelae of oral infections on overall health.

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