

Mini Review

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Oral Health and Respiratory Disease- A Review



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Abstract

Recent literature supports the association between respiratory disease and oral health and confirms the oral cavity to be a harbor of infectious respiratory pathogens. Periodontal disease has been moderately associated with atherosclerosis, myocardial infarction and cardiovascular disease and the risk of chronic obstructive pulmonary disease is also known to be significantly elevated with severe periodontal attachment loss.

Keywords: Oral cavity; Respiratory diseases; Teeth

Introduction

In 2001, following a nine year study of 358 veterans, dental decay and the presence of cariogenic bacteria and periodontal pathogens were shown to be significant aspiration pneumonia risk factors [1]. Another study observed 189 elderly persons over a four year period and confirmed an association between pneumonia and decayed teeth. In this study dependence on caregivers was also linked to Pneumonia [2]. A third study linked higher plaque scores with a previous history of respiratory tract infections [3].

Pneumonia is defined as an inflammatory condition of the lung caused by bacterial, viral, fungal or parasitic infections [4]. The risk of pneumonia is, in part, determined by the specific bacteria inhaled and the body's ability to eliminate the bacteria from the airway mucosa. To eliminate aspirated bacteria from the lower airway, multiple defense mechanisms must function properly. Poor oral hygiene and the presence of periodontal disease may foster oropharyngeal colonization of respiratory pathogens which increase the probability of aspiration pneumonia, especially in high-risk patients [5]. The effectiveness of these mechanisms may also be further impaired by a variety of life conditions such as advanced age, residing in a nursing home or hospital and debilitated persons [5].

Asthma Implications for Dentistry

Recognition and Understanding of Asthma

In the dental office, the understanding of asthma is very essential. A patient with asthma symptoms may present with a need for emergency treatment. Additionally, there may be a need

to use rescue medication for the patients during treatment in the dental office. It is essential to determine in advance that the rescue inhaler should always be present and easily available to the patient. The treatment side effects and symptoms of asthma should be recognized and managed appropriately. For example, side effects of asthma controller medications include oral fungal overgrowth and throat irritation. Rinsing with water should be advised to patients after each inhalation to minimize this side effect.

Additionally, there is a frequent history of asthma reported by grown-up dental patients. In children, it is more prevalent. An acute episode of asthma in the dental office may be precipitated by extrinsic factors such as inhaled allergens, as well as various intrinsic factors such as anxiety or fear. An episode of asthma should be regarded as a medical emergency and must be treated promptly by inhalation of a bronchodilating agent. The dentist should be alert with an asthma history of the dental patient and implement strategies that may prevent an acute attack and to be prepared to manage this potentially life-threatening medical emergency properly. The chronic use of glucocorticoids and/or bronchodilating inhalers for the management of asthma can increase the likelihood of oral candidiasis, particularly in patients having other risk factors such as the use of xerostomic medications, denture use, or smoking [6].

Conclusion

The management of patient with respiratory disease in dental office is very important. Thorough diagnosis for any systemic diseases should be done for preventing any systemic

complications during dental treatment. Various emergency drugs required in treatment of respiratory diseases should be kept in the dental office.

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