

Relationship between Periodontitis And Diabetes

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Abstract :

Periodontitis and diabetes are common, complex, chronic diseases with an established bidirectional relationship. That is, diabetes (particularly if glycaemic control is poor) is associated with an increased prevalence and severity of periodontitis, and, severe periodontitis is associated with compromised glycaemic control. The inter relationships between diabetes and periodontal disease provide an example of systemic disease predisposing to oral infection, and once that infection is established, the oral infection exacerbates the progression of systemic disease. This study was performed on , a total of 100 patients aged between 35-50 years who reported to dental clinic for treatment . The patients had different social, economic and cultural background. They were asked to complete a questionnaire regarding their oral health , behaviors, habits and knowledge about general health. The survey report shows that prevalence of diabetes in patients with periodontitis was significantly higher than that of the non-periodontitis group .

Key words : Periodontitis, Diabetes, glycaemic control, oral health

INTRODUCTION:

Dentists have long been aware of the importance of a diagnosis of diabetes in their patients, and various oral conditions are associated with diabetes, including xerostomia and candidal infections as well as periodontitis. Periodontitis is a common chronic inflammatory disease characterised by destruction of the supporting structures of the teeth (the periodontal ligament and alveolar bone). Diabetes mellitus is a metabolic disorder characterized by hyperglycemia due to defective secretion or activity of insulin(1). Epidemiological data confirm that diabetes is a major risk factor for periodontitis; susceptibility to periodontitis is increased by approximately threefold in people with diabetes. The oral complications reportedly associated with diabetes include tooth loss, gingivitis, periodontitis, reduced salivary flow, increased saliva glucose, oral soft tissue pathologies.(2-8). Soft tissue pathologies, particularly lesions associated with delayed healing and candidal infections, have been observed more frequently in diabetic populations (4,5,9). There is a clear relationship between degree of hyperglycaemia and severity of periodontitis. Periodontitis and diabetes are common, complex, chronic diseases with an established bidirectional relationship. That is, diabetes (particularly if glycaemic control is poor) is associated with an increased prevalence and severity of periodontitis, and, severe periodontitis is associated with compromised glycaemic control. Periodontitis has been referred to as the sixth complication of diabetes.(10) A number of studies found a higher prevalence of periodontal disease among diabetic patients than among healthy controls . Recent investigations have attempted to determine if the presence of periodontal disease influences the control of diabetes.(11). The interrelationships between diabetes and periodontal disease provide an example of systemic disease predisposing to oral infection, and once that infection is established, the oral infection exacerbates the progression of systemic disease. From this, we can conclude that prevention and control of periodontal disease must be considered an integral part of diabetes control.

MATERIALS AND METHOD:

This study was performed on , a total of 100 patients aged between 35-50 years who reported to dental clinic for treatment . The patients had different social, economic and cultural background. They were asked to complete a questionnaire regarding their oral health , behaviors, habits and knowledge about general health. The questionnaire included demographic, dental and diabetic items and cigarette and alcohol habits. Demographic data included age, gender and education; diabetic items included type of diabetes, duration of diabetes, treatment of diabetes; dental items included frequencies of tooth brushing, bleeding while brushing, general knowledge about oral health, and diabetes.

RESULT AND DISCUSSION:

Out of 100 patients surveyed 58(58%) patients were found to be diagnosed for Diabetes and 42(42%) patients were found to be non-diabetic. Out of 58 diabetic patients screened for periodontitis, 31 patients were found to have chronic periodontitis (53.45%). Among non-diabetic group 18 patients were(42.85%) found to have periodontitis. The prevalence of diabetes in patients with periodontitis was significantly higher than that of the non-periodontitis group . Cigarette smoking and alcohol consumption have been known to affect the oral microflora adversely. Smoking is an established risk factor for developing periodontal disease in both healthy people and diabetic patients. Moore et al. reported the prevalence of smoking among diabetics as 19% (12).

The survey report supports the conclusion that a two way association exists between diabetes mellitus and periodontal health; diabetes is associated with increased development and progression of periodontitis, and the evidence suggest periodontal infection is associated with poorer glycaemic control in people with diabetes.

CONCLUSION:

Controlling diabetes (i.e. improving glycaemic control) is likely to reduce the risk and severity of periodontitis. Diabetic patients appear to lack important knowledge about the oral health complications of their disease and need for proper preventive care. They were eager to get information about oral health and diabetes. However, 10% of them were not sure to attend seminars about oral health, and 3% stated that they could not attend to the seminars because of the difficulties living in a big city. Treating periodontal infection in people with diabetes is clearly an important component in maintaining oral health. Therefore, dental health professionals might fulfill an important role in maintaining or improving the health, and ultimately the quality of lives, of individuals with diabetes.

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