

WHAT THE MOUTH HAS TO SAY ABOUT DIABETES IN A NIGERIAN TERTIARY HOSPITAL

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Introduction: The mouth is said to be the body's mirror. Diabetes can be associated with the development of various types of disorders within the oral cavity of which Periodontal disease is about the commonest and may indeed be the first manifestation of diabetes. Oral manifestations of diabetes are many and include burning mouth syndrome, candidiasis, dental caries, gingivitis, glossodynia, periodontitis, salivary dysfunction and parotid gland enlargement, taste dysfunction and xerostomia among others. Apart from being considered as the sixth complication of diabetes, it has been shown that severe periodontal disease increases the risk of nephropathy, stroke, transient ischaemic attack, angina and myocardial infarction.

Aim: To evaluate the oral health of individuals with diabetes at Federal Medical Centre, Abeokuta, Nigeria.

Methodology: Descriptive study carried out between January and December 2014. The findings during the annual dental examination in each patient with diabetes were documented alongside their HbA_{1c} levels.

The World Health Organization Community Periodontal Index was used to assess the periodontal health status of patients as follows:

Score 0 = healthy periodontal conditions

Score 1 = gingival bleeding

Score 2 = gingival bleeding and calculus

Score 3 = shallow periodontal pockets (4 to 5 mm)

Score 4 = deep periodontal pockets (≥ 6 mm)

Results: 103 patients comprising of 45 males (43.6%) and 58 females (56.4%) participated in the study. Age ranged between 18 - 89 years with mean age of 57.14 ± 13.06 years. Duration of Diabetes was between 1 month and 30 years with a mean duration of 6 years while mean HbA_{1c} was 66.1 mmol/mol with a range of 22.4 mmol/mol - 130.6 mmol/mol.

15.5% had healthy periodontium, while 84.5% had various periodontal disorders. Sixty-six percent of those with periodontal disease had HbA_{1c} greater than 53 mmol/mol.

56.3% had mild gingivitis, 40.8% had moderate gingivitis while 2.9% had severe gingivitis. Of these, only 30.1% had HbA_{1c} greater than 53 mmol/mol.

39.8% had missing teeth; 29.1% had between 1 and 4 teeth missing, while 10.7% had between 5 and 15 teeth missing. There was significant association between Diabetes duration and missing teeth, $p = 0.002$.

Discussion: oral lesions in diabetes are associated with the state of glycaemic control and disease duration. Higher glycosylated haemoglobin levels were associated with varying degrees of periodontal disease. Periodontitis may contribute to poor glycaemic control and poor glycaemic control may increase the severity of periodontitis. This bi-directional relationship which has been proven in literature is also shown in this study. There was a strong association between duration of diabetes and number of missing teeth in this study.

Conclusion: Good oral health is now one of the accepted strategies in achieving glycaemic control in diabetes. Annual oral examinations in individuals with diabetes are therefore of great value in early identification and management of oral complications that follow diabetes.

References

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