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Effect of Nonsurgical Periodontal Therapy On Total Antioxidant Capacity In Chronic Generalised Periodontitis Patients –A Clinical Trial

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Introduction: The role of reactive oxygen species has been implicated in pathways of periodontal destruction. Measurement of the Total Antioxidant Capacity (TAOC) will be a representative of the total antioxidant capacity of saliva and serum than individual antioxidants as the free radical reactive oxygen species and antioxidant system appears to act in concert rather than alone.

Aim: The aim of present study was to evaluate the salivary and serum Total Antioxidant Capacity (TAOC) of Chronic Generalised Periodontitis before and after Non surgical Periodontal Therapy. A total of 50 subjects consisting of 25 subjects with Chronic Generalised Periodontitis and 25 Systemically Healthy subjects without periodontal disease were included in the study. Saliva and serum samples of Chronic Periodontitis subjects before and 3 months after Non surgical Periodontal Therapy was collected. Clinical Measurement were done after saliva samples were taken. Healthy subjects saliva and serum was also collected. TAOC of saliva and serum was determined using FRAP method. Paired t test for done for intragroup comparison and Unpaired t test for Intergroup comparison.

Results : Total Antioxidant Levels in Both serum and saliva was lower in Periodontitis group when compared with Periodontally Healthy group ($p < 0.05$). Nonsurgical Periodontal Therapy increased serum and saliva Total Antioxidant Capacity after 3 months.

Conclusion: These findings suggests that in subjects with Chronic Periodontitis Total Antioxidant Capacity decreases both locally and peripherally. There is an increase in oxidative stress in chronic Periodontitis cases and Non Surgical Periodontal Therapy helps in reducing the stress by decreasing the inflammation and free radical species. There is a positive correlation of Nonsurgical Periodontal Therapy and TAOC.

Keywords: Antioxidants, Free radicals, Periodontitis, Total antioxidant capacity.

Biography

Dr. Swet Nisha has completed her Bachelor Of Dental Surgery at the age of 24 years from West Bengal University Of Health Sciences and presently pursuing Postgraduation In Periodontology & Oral Implantology from J.S.S Dental College & Hospital, Karnataka, Mysore, India.

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