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BUCCAL SMEAR: A PROMISING TOOL IN THE DIAGNOSIS OF DIABETES MELLITUS

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Introduction: Diabetes adversely affects the morphology of buccal mucosa and may compromise tissue function to favours the occurrence of oral infections and neoplasia. The morphologic and functional changes in oral mucosa can be studied at the cellular level by using exfoliative cytology which can help the diagnosis, with better patient acceptability as it is a painless, non-invasive and less time-consuming procedure.

Subjects & Methods: A total of 180 patients were included in the study. Patients were also grouped into the following three categories for further analysis based on their glycohemoglobin (GHb) levels: Controlled diabetics (CD) - GHb \leq 6%, Uncontrolled diabetics (UCD) - GHb $>$ 6% and \leq 8% and Non-diabetics (ND) - GHb $>$ 8%. Smears were taken from clinically normal buccal mucosa of these subjects and stained to look for any abnormalities.

Results: Statistical analysis of the data obtained showed that the MV of meisels cells from non-diabetic patients was significantly higher ($p=0.008$) than cells from diabetic subjects. Percentage of micronuclei was significantly higher ($p=0.00$) in uncontrolled diabetics as compared to controlled diabetics and non-diabetics.

Conclusion: Diabetes mellitus induces definite morphological and morphometric changes in the exfoliated buccal mucosal cells. However, for establishing exfoliative cytology as a diagnostic tool for diabetes, further studies are required on a larger scale.

Biography

Nandita Shenoy has graduated in 2004 from Yenepoya Dental College with gold medal for best outgoing student. She completed her post graduate training from MCODS Manipal in 2008. She joined MCODS Mangalore in 2008 as an Asst. Professor & is currently an Associate Professor in Oral Medicine and Radiology. Dr. Nandita is having 54 published papers in peer reviewed journals till date and 2 ICMR grants. She is a firm believer in inter disciplinary interaction and research & have co-authored papers and conducted research relevant to my specialty along with various departments like Geriatrics, Diabetology, Oncology, Pharmacology, Dermatology, Infectious Diseases, and General Medicine. She have completed advanced training and certification in CBCT applications and interpretation. She is also serving as the Radiation Safety officer for MCODS, Mangalore. She is the recipient of Dentsply proactive junior academician in her specialty.

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