Assessment of root caries in patients reporting to a teaching hospital in Karachi

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As patients grow older, their gums recede and root surfaces are exposed, making them susceptible to root caries. Objectives of the study were:

• To determine frequency of root caries among patients visiting AKUH dental clinic.
• To determine association of root caries with gender, xerostomia, smoking, betel nut and sugar intake.

A cross-sectional study was conducted at Aga Khan University Hospital Karachi Hospital from December 2013 to January 2014. Patients above 30 years of age who visited dental clinics with gum recession or root surface caries were included. Information included age, sex, brushing habits, xerostomia etc. Intraoral examination was done on all teeth excluding third molars. SPSS 19.0 was used, frequency distribution of all the variables was determined. Unit of analysis for root surface caries was the tooth while for demographics, habits and occlusion the data was analyzed at patient level. Variables of interest were frequency of root surfaces exposed, carious and restored. A total of 4080 root surfaces of 40 subjects were examined. Mean age was 55.6 years (±11.4 SD). About 805 (19.7%) surfaces were exposed. Around 137 (3.35%) surfaces were carious and only 18 (0.44%) were restored. Eighteen subjects had root caries on less than 2 surfaces; fourteen subjects had root caries on 3-5 surfaces and there were eight subjects with more than 5 carious surfaces. Nine subjects (22.5%) reported use of paan and chalia. Bruxism was observed in 13 subjects (32.5%). Most common type of gum recession was Miller's Class III (60%). The most common gum recession pattern observed in our study was deep and wide (Miller's Class III). One fifth of the subjects had extensive root caries (>5 surfaces). Root surface exposure was found to be associated with smokers (p 0.01) while root surface caries was associated with high sugar intake (p 0.02).

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