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Does nature of diet consumed has an association with the prevalence of dental caries?

Sir,
Polarization of caries is occurring on a worldwide basis, where the prevalence of caries is declining in developed countries and increasing in less-developed countries; also, this is epidemic in countries with emerging economies.[1] Diet has been associated with the prevalence of dental caries for centuries. In the field of research about caries etiology, diet has probably received more attention than any other subjects.[2]

Literature has shown that nature of diet consumed, whether vegetarian or mixed, shows association with prevalence of dental caries. To reveal this association, a study was conducted among 6-12-year-old school children in Shimla city, Himachal Pradesh, India. A cross-sectional study was conducted on 1,200 school children aged 6-12 years from 11 government elementary schools, which were selected randomly from all parts of the city. Data was collected through clinical examination of the children and questions were asked related to the nature of the consumed diet. Data was analyzed using SPSS (version 13), and Chi-square test was used for comparison.

Results of the study revealed the association. Children following a vegetarian diet had a higher prevalence of dental caries than those following a mixed diet (79.4% vs. 74.2%); this difference was highly statistically significant (χ^2=19.71, P<0.01). Similar results were reported by Khan *et al.*[3] and Bhardwaj *et al.*[4] Individuals who consume mixed diet rich in protein develop less amount of acid in their mouth and are relatively protected from dental caries. This may be due to putrification of the protein diet rather than fermentation of carbohydrates, where alkalinity replaces acidity and no decalcification is usually observed.[3]

Thus, the study revealed that vegetarian/mixed diet has an impact on the prevalence of dental caries. However, to prove this point, further studies need to be conducted among different populations and age groups.

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