

paring the hemolysate for starch agarose electrophoresis at pH 8.6, care has to be taken that the lysates are not shaken too violently with organic solvents as this would precipitate out the Hb H(6,10) and no Hb H band would be seen on electrophoresis, and the diagnosis of Hb H disease may be missed as had happened in case 3 on an earlier occasion. These two simple tests can clinch the diagnosis.

However, further studies like globin chain analysis(5) and antenatal diagnosis(11) and the awareness about the prevalence of this hemolytic disorder would help in diagnosing more cases of alpha thalassemia and in genetic counselling. A thrust in this direction by various scientific and voluntary agencies would go a long way in bringing down the birth rate of α and β thalassemics.

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Screening for Dental Diseases

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Dental diseases including dental caries and periodontal diseases are very common in children. The incidence of these conditions, however, vary from country to country and even in different parts of the same country. The present study was done to assess the oral health status of school children of Rohtak, Haryana.

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Material and Methods

Five hundred and one students, 5 to 13 years old, from two schools in Rohtak city were studied. Most of these students belonged to the middle socio-economic class. The method of oral hygiene practised was recorded. Examination was done in a room having good daylight illumination and the dental diseases seen were classified into: (i) disorders of mucosa, teeth and bone, (ii) dentofacial anomalies, (iii) periodontal disease (soft deposits, calculus or stain, gingivitis) and (iv) dental caries (decayed, missing and filled teeth—dmft for deciduous and DMFT for permanent teeth). The definitions and criteria used were those given by the WHO(1). The data was statistically analysed using the Chi square test.

Results

A total of 259 (51.6%) children were 5 to 9 years old. Tooth brush with tooth paste or tooth powder was used by 475 (94.8%), Datun (twig toothbrush) by 12 (2.4%) and other methods including fingerbrush and mouth rinsing were used by 14 (2.8%) children.

The disorders of mucosa teeth and bone included stomatitis, supernumery teeth, hypoplasia and fractured enamel and crown. These disorders showed an increasing incidence with age, being the maximum in children 11 to 13 years old. Periodontal diseases showed a similar trend (*Table I*).

Evaluation of the status of dental caries showed a mean dmft and DMFT of 1.71 ± 1.85 and 1.19 ± 0.75 , respectively. In the 5 to 9 years age group the same was observed in 32% children. The mean dmft + DMFT for children using toothbrush was less than those using datun and those using no method of oral hygiene (*Table II*).

However, the number of cases in the latter two groups was too small for statistical analysis.

Discussion

The incidence of dental caries in the present study for the 5 to 9 years and 10 to 13 years age groups was 54 and 32%, respectively. This is lower, than that reported from other urban areas of the country(2). In contrast, the reported incidence of dental caries among tribal school children of Wardha district was only 6.9%(3). The higher incidence of dental caries in the younger child seen in the present study is similar to that reported earlier(4,5).

Periodontal disease was present in 80-89.5% of children in our study compared to a reported 74 to 100% from other parts of the country(6-8). Soft deposits, calculus, stain and gingivitis, showed an increasing incidence with age in the present study. The same has been observed earlier(9). Incidence of periodontal disease in tribal children is however reportedly very low (3.7%)(3).

Among the different oral hygiene measures practised, toothbrush was associated with the lowest incidence of caries. Hence, we recommend it as the best oral hygiene measure. Also, for the younger child, primary prevention with brushing and restorative dental care needs renewed emphasis.

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TABLE I—Dental Diseases in School Children

Age (yrs)	No. screened	* Disorders of mucosa, bone and teeth		**Dentofacial anomalies		***Soft deposits		Periodontal status		#Gingivitis
		No.	(%)	No.	(%)	No.	(%)	+ Calculus/stain	(%)	No. (%)
5-7	275	83	(30.2)	34	(12)	221	(80)	42	(15)	45 (16)
8-10	130	50	(38.5)	24	(18)	113	(86)	33	(25)	51 (39)
11-13	96	47	(48.0)	21	(21.8)	86	(89.5)	57	(59)	52 (54)

χ^2 test, * $p < 0.05$, ** $p > 0.05$, *** $p < 0.05$, + $p < 0.01$, # $p < 0.001$

TABLE II—Dental Caries in Relation to Method of Cleaning

Method of cleaning practised		DMFT (Mean \pm SD)	dmft (Mean \pm SD)
1.	Tooth brush with paste/powder (n=475)	0.60 \pm 1.4	1.68 \pm 3.10
2.	Datun (twig tooth brush) (n=12)	0.42 \pm 0.79	3.4 \pm 2.74
3.	Others (n=14)	0.8 \pm 2.23	4.2 \pm 2.29

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