

VARIATION IN NUMBER AND MORPHOLOGY OF PRIMARY TEETH IN BRAZILIAN PRE-SCHOOL CHILDREN.

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INTRODUCTION: Dental anomalies are disturbances in tooth development determined by genetic and/or environmental factors. Number, size, shape alterations as well as defects of mineralized tissues are the most common dental anomalies reported. Epidemiological studies in primary dentition have shown a prevalence that ranges between 0.1% and 1% in the general population. The aim of the present study was to determine the prevalence and distribution of agenesis, size and shape anomalies of the primary dentition in Brazilian pre-school children.

METHODS: A cross sectional study was carried out in 20 public day care centers in the city of Brasilia during 2006. Of a total of 2065 children, 1755 children (836 girls and 919 boys) with ages comprised between 2 and 5 years old were clinically examined to detect teeth agenesis, peg-shaped teeth, double teeth, supernumerary teeth and dental shape alterations.

RESULTS: The percentage of children presenting at least one affected tooth was 5.75%. Only, six children presented two different types of dental anomalies simultaneously (tooth agenesis and double teeth; double teeth/shape alterations; supernumerary/shape alterations). The frequencies of dental anomalies of the preschool children sample are shown in Table 1. The most prevalent anomaly detected was dental shape alterations mainly supernumerary cuspids in upper canines. In The absent teeth detected were lower incisors (55%), upper incisors (36%) and lower canine (9%). No dermatological anomalies were observed in these patients. The double teeth were observed mainly in the lower jaw (88%) and in the incisor and canine region. Sixty five percent of these teeth were either fusion or germination of the lower central and lateral incisors, whereas fusion or germination of lower

lateral incisors and canines were observed in 22 %. All the upper double teeth observed involved central and lateral incisors. Two cases of peg shaped teeth (0.11%) were observed with no association with tooth agenesis of deciduous teeth.

Table 1 - Prevalence of preschool children with dental anomalies

Type of dental anomalies	n	Frequency (%)
Shape alterations	63	3.59
Double teeth	19	1.08
Supernumerary	6	0.34
Tooth agenesis	5	0.28
Peg shaped	2	0.11
Double teeth/ Shape alterations	3	0.17
Double teeth/ Tooth agenesis	2	0.11
Supernumerary/ Shape alterations	1	0.06
No alterations	1654	94.25
Total	1755	100



Fig.1 – Types of dental anomalies

CONCLUSIONS: The presents results are in accordance with studies in different geographic regions. Further family studies and radiographic analysis of the children are necessary in order to determine a familial aggregation and to verify the presence of agenesis in the permanent dentition of the affected individuals.

REFERENCES: Brook AH, Winter GB. Double teeth. A retrospective study of 'geminated' and 'fused' teeth in children. Br Dent J. 1970 4;129(3):123-30. Carvalho JC, Vinker F, Declerck D. Malocclusion, dental injuries and dental anomalies in the primary dentition of Belgian children. Int J Paediatr Dent. 1998 Jun;8(2):137-41. Magnusson TE. An epidemiologic study of dental space anomalies in Icelandic schoolchildren. Community Dent Oral Epidemiol. 1977;5(6):292-300.