PREVALENCE OF ENAMEL DENTAL DEFECTS IN THE DECIDUOUS TEETH OF PRESCHOOL CHILDREN IN BRASILIA, BRAZIL

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INTRODUCTION: Developmental defects of the enamel (DDE) are the result of alterations during amelogenesis due to hereditary, systemic or environmental factors. The aim of this study was to determine the prevalence and distribution of enamel defects in the deciduous dentition of pre-school children with low socio-economic status, in the Federal District, Brazil. **METHODS:** A cross sectional study was carried out in 20 public day care centers during 2006. The dental examination was done by two examiners and the inter-examiners reliability was 0.82 (Kappa). All buccal surfaces of the teeth were examined and the enamel defects were classified and recorded according to the modified DDE Index (FDI,1992). Descriptive statistics were performed and the difference in the prevalence was tested with the Chi-square test, at a level of significance of 5%. **RESULTS:** A total of 1755 children (836 girls and 919 boys) with ages comprised between 2 and 5 years old were clinically examined. The prevalence of DDE was 48.55%, with a significant difference between genders, showing that boys were more affected. The number of examined teeth was 34.672. The mean of affected teeth by children was 1,23 ± 0,86 and 42.5% of the children presented between 1 to 4 affected teeth. The most affected teeth were the lower canines (27.12%), followed by the upper canines (11.62%) and the upper molars (11.68%). The distribution of frequencies and percentages of the different types of enamel defects according to the DDE Index are shown in Table 1. The most prevalent enamel defect observed was the demarcated opacity. Small defects occupying 1/3 of buccal surface of the teeth were the most frequently observed defects

Table 1 – Distribution of enamel defects according to the DDE Index in Brazilian preschool children.

Types of Defects of Dental Enamel	n	Frequency (%)
Demarcated opacity	633	30.30
Diffuse opacity	616	29.47
Hypoplasia	468	22.39
Demarcated / Diffuse opacity	104	4.98
Demarcated opacity/ Hypoplasia	139	6.65
Diffuse opacity/ Hypoplasia	62	2.96
All three defects	68	3.25
Total	**2090**	**100**

CONCLUSIONS: The results indicate a high prevalence of enamel defects in the low socioeconomic sample studied as previously reported in other populations. Further studies are necessary in order to identify the etiology of these defects in this sample.

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