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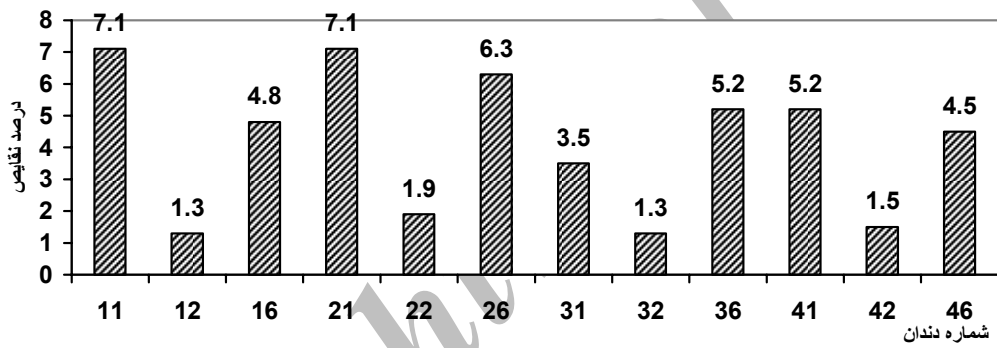
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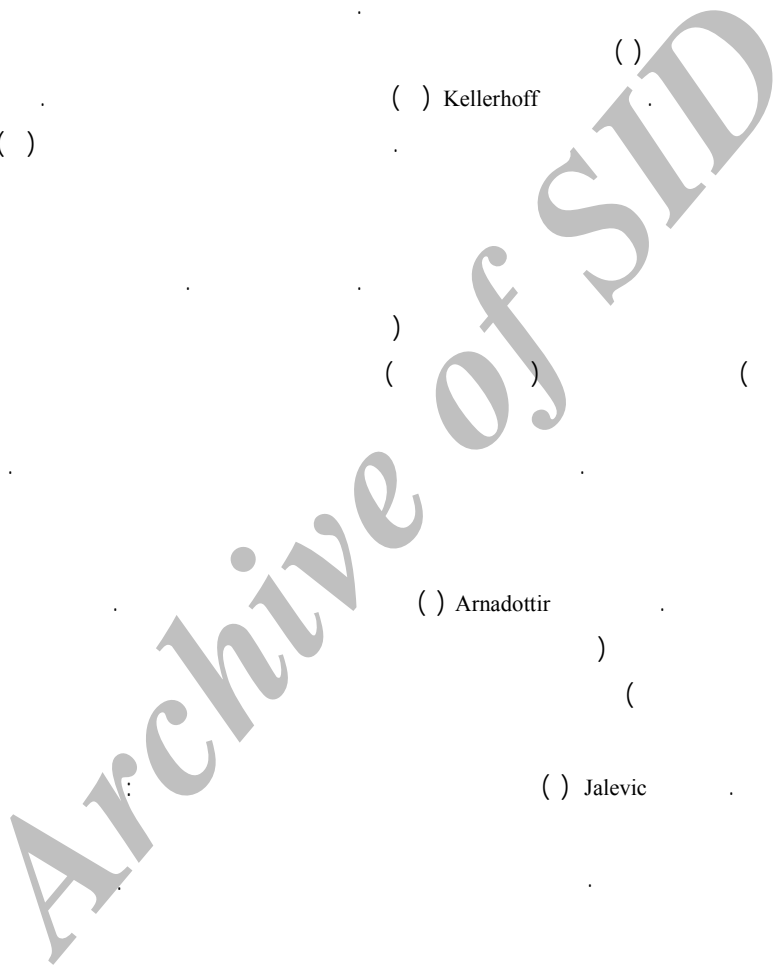
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Prevalence of Enamel Defects and Associating Factors in Permanent Incisors and First Molars in 8-9 years-old Children

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Abstract

Introduction: Enamel developmental defects may be classified as heritable or environmentally induced defects. Incisors and molars are usually involved. The affected molars create problems for the patients due to hypersensitivity and caries susceptibility and often require extensive treatment. Many studies were performed to determine the prevalence of enamel defects and conflicted results have been obtained.

Objective: Determine the prevalence of enamel defects and associating factors in permanent incisors and first molars in 8-9 year-old children of Rasht in 2007.

Materials and Methods: This was a descriptive and cross-sectional study. The sample consisted of 538 students aged 8-9 years-old who were randomly selected from 16 schools in Rasht. The Developmental Defects of Enamel (DDE) index was used to assess permanent incisors and first molars, which were dried prior to examination and a light was used for evaluation. A questionnaire about possible etiological factors of enamel defects were sent to parents of children. Data were analyzed with SPSS software by chi-square test. Multivariate analyses were performed using logistic regression analysis.

Results: 126(23.4%) of children had enamel defects in at least one tooth. 12.8 % had at least one affected molar. White/Cream opacity was the most common type of enamel defect. Maxillary central incisors were the most commonly affected tooth.

Mother's diseases during the last trimester, urinary tract infections, diarrhea & vomiting and high-fever diseases during the first 5 yrs of life showed a high association with enamel defects.

Conclusion: It is necessary to inform parents about the prevalence and etiology of the enamel defects by gynecologists, pediatricians and dentists.

Key words: Child/ Dental Enamel/ Incisor/ Molar

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