

Abstract

Comparison of the DMFT index in permanent teeth of 6 to 10-year-old children with molar incisor hypomineralization disease with healthy children

Introduction: Molar incisor hypomineralization (MIH) is a developmental enamel defect. Children with this disease may experience extreme sensitivity of teeth to temperature changes and increase the risk of caries, which makes it difficult to maintain oral hygiene. Assessment of the onset of caries and oral care of these children is one of the challenging problems of dentistry. Considering the importance of this issue, this study has compared the DMFT index in permanent teeth of 6 to 10-year-old children with molar incisor hypomineralization disease with healthy children.

Materials and Methods: The participants in this case-control study included children aged 6 to 10 who referred to children's dental offices in Ardabil. After the definite diagnosis of MIH, a group of 56 children were selected as the study group. After the definite diagnosis of the absence of MIH, 56 children with the same characteristics (in terms of age, gender, etc.) were selected as the control group, and the DMFT index was evaluated in these children. D shows the number of decayed teeth, M shows the number of missing teeth, and F shows the number of filled teeth. Chi-Square and T-test statistical tests were used to analyze the recorded data ($P < 0.05$).

Results: The average number of involved teeth in the MIH group was estimated as 4.69 ± 2.27 . In terms of the severity of tooth involvement in the affected group, the highest type of involvement with the frequency of 27 children (48.2%) was related to first grade or mild MIH. the average DMFT index was 2.41 ± 2.07 in the case group and 1.03 ± 1.42 in the control group. In the case group, D values were 61%, M 3% and F 36%. In the control group, D values were 64%, F values were 36%, with the absence of fallen or extracted teeth (M) was found.

Conclusion: According to the results of this study, the amount of DMFT index in permanent teeth of children with molar incisor hypomineralization (MIH) is higher than children without this disease. It seems that encountering MIH as a cause of caries is a challenging issue and requires a wider and multifaceted examination of the patient's condition.

Keywords: Enamel hypoplasia, DMFT index, molar incisor hypomineralization, caries.