Abstract

Introduction: Molar- incisor hypomineralization is a type of enamel structural defect with a systemic background, which affects at least one permanent first molar and is often associated with incisor involvement. This disease can affect people's daily life and lead to negative social and aesthetic effects in children. considering the importance of this issue, this study has investigated the relationship between molar-incisor hypomineralization (MIH) with oral hygiene behaviors in 6–10 year old children referred to specialized dental treatment centers for children in Ardabil in 2022.

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. the level of oral hygiene in these children were evaluated by completing the questionnaire by their mothers. Chi-square and t-tests were used to analyze the relationship between variables. A significance level of less than 0.05 was considered ($P<0.05$).

Results: In this study, the average age of children with MIH was 8.32 and the average age of non-MIH group was 8.39. among the children who entered the study, the population of girls (64.3%) was more than boys (35.7%). The highest severity of teeth involvement was mild (48.2%). The highest number of teeth involvement with 12 teeth in 2 children (3.6%) and the least teeth involvement with 2 teeth was seen in 7 children (12.5%). The group of non-MIH children used toothbrush ($P=0.009$) and mouthwash ($P=0.004$) more than MIH group and they received more fluoride ($P=0.017$). no significant difference was observed between the case and control groups in terms of the age of start brushing, the frequency, time and duration of brushing and using fluoride toothpaste and the first age of receiving fluoride ($P<0.05$).

Conclusion: According to the results of the study, children with MIH have less oral hygiene behavior than children without MIH.

Keywords: molar-incisor of Hypomineralization, Oral Health, Enamel hypoplasia