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### **Trends in the Prevalence of MIH in Tepatitlán de Morelos**

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**Objectives Objectives:** The aim of this study was to compare the prevalence of MIH in children of elementary schools in Tepatitlán de Morelos (Jalisco, Mexico) between 2018 and 2023. Furthermore, the association of MIH with other variables was investigated.

**Methods Methods:** The study population consisted of children aged between 5-13 years old, enrolled in elementary schools in Tepatitlán de Morelos. The intra-oral examination was performed on schoolgrounds by two calibrated examiners. In both patient cohorts, the presence and characteristics of MIH and Hypomineralised Second Primary Molar (HSPM) were scored according to the standardised scoring system formulated by the European Academy of Paediatric Dentistry (EAPD). Also, the severity of MIH was determined either mild or severe based on the criteria of Lygidakis et al. (2021). In 2023, dental plaque and dental caries were additionally scored according to the ICDAS-II criteria. Statistical analysis was applied on the data sets of 2018 and 2023 separately ( $\alpha=5\%$ , 95%CI).

**Results Results:** A total of 959 schoolchildren were evaluated, 436 in 2018 and 523 in 2023. The prevalence of MIH was 35.78% in the first patient cohort, and 26.58% in the second patient cohort ( $p=0.002$ ). Also, the tooth level prevalence of MIH decreased significantly from 12.71% to 8.00% when comparing the two patient cohorts ( $p<0.001$ ). Higher prevalence of HSPM were observed in patients with MIH in both patient cohorts ( $p<0.001$ ). Neither the number of teeth presenting cavitated caries lesions ( $p=0.193$ ), nor the plaque score ( $p=0.061$ ) was associated with the presence of MIH in 2023. Though, patients with severe MIH had a higher likelihood to present cavitated caries lesions compared to patients with mild MIH ( $p=0.001$ ).

**Conclusions Conclusions:** The findings in the present study portray a significant decrease in the MIH prevalence at both patient and tooth level in the period 2018-2023.