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Guest Editorial

Children with Celiac Disease are Confronting Dental Maturity

Mohammad Karimi*

Pediatric Department, Sepideh Dental Clinic, Iran

***Corresponding Author:** Mohammad Karimi, Pediatric Department, Sepideh Dental Clinic, Iran.

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Abbreviations

CA: Chronological Age; CD: Celiac Disease; DA: Dental Age; DE: Dental Eruption; DM: Dental Maturity

Celiac disease is an autoimmune disease that affects the small intestine lining. Both children and adults can develop this condition at any age. However, this disease can be started as young as around six months, once solids containing gluten have been introduced into the body.

Besides the digestive problems, these children could experience some oral manifestations including aphthous ulceration, delayed dental eruption (DE) and dental enamel defects.

In a study of children with celiac disease and healthy children (control group) between 2017 and 2020, evidence and analytical data showed that there could be an association between celiac disease in children and delayed eruption of their teeth. A panoramic radiograph and a comprehensive oral examination were performed for each participant. Tooth age (DA) was calculated based on Demirjian methods and DM (dental maturity) by subtracting the calendar age (CA) from DA. Statistical analysis was performed to compare DM between CD patients and controls and multivariate analysis was used to search for DM predictors.

Several published kinds of research revealed the correlation between celiac disease and dental age. These studies indicated that CD patients could have delayed dental eruption compared to healthy controls. Some authors believed poor nutritional status in CD patients could affect delayed DE.

Several studies have reported that the delayed DA in CD might be associated with malnutrition and malabsorption of nutrients or vitamins necessary for dental development in children with celiac disease. However, one data indicated consumption of carbohydrates and fruits in children tends to prevent delayed DE.

From this study, we can reach the point that the frequency of delayed DM could be higher in patients with celiac disease than in controls, and no predictors were found for DM except for age [1-9].

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