534 | Fusion in primary, permanent dentition: A report of four cases

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Introduction: Fusion is a developmental anomaly that result from union of two dental germs, resulting in union of two adjacent teeth during morpho differentiation stage of tooth development. The prevalence of tooth fusion is reported to be 0.5%-2.5% in the primary dentition and around 0.5% less in permanent dentition. This article presents 3 cases of fusion in the primary dentition and a case of fusion in the permanent dentition.

Case reports:

Case 1: A four-year-old boy accompanied with her mother reported to the pediatric dentistry clinic for a general dental checkup. On intraoral examination, fusion was observed between primary mandibular right central incisor (CI) and lateral incisor (LI).

Case 2: A five-year-old boy reported to the clinic due to maligned teeth. On intraoral examination, fusion was observed between primary mandibular right CI and LI.

Case 3: A five-year-old girl reported to the clinic for dental checkup. Intraoral examination revealed fusion of primary mandibular right central CI and LI.

Case 4: A eight-year-old boy reported to the clinic with the pain in the lower left back teeth. Intraoral examination revealed fusion of permanent mandibular right CI and LI.

Discussion: Fused teeth in general are asymptomatic, but they may create some complications in aesthetic or malocclusion which may lead to dental caries. The mandibular right side is more common for fusion than the mandibular left side. Interestingly, all the cases presented here had a right-side predilection.

Conclusions: There is a need to explore the reason for the side predilection in fusion

729 | Pathophysiology of green teeth due to hyperbilirubinemia: A literature review

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Background: Green teeth due to hyperbilirubinemia is an uncommon condition that is rarely encountered in the society and is aesthetically challenging. This literature review aims to study the pathophysiology of green teeth due to hyperbilirubinemia.

Methods: A comprehensive English-limited data have been collected from various sources including articles published from Scopus, NCBI, ScienceDirect and books in order to reach a relevant solution. The keywords used for the literature search are "green teeth", "bilirubin", "hyperbilirubinemia", "jaundice" and "tooth discoloration". The timeframe included the articles obtained was from 2000 to 2020.

Results: Hyperbilirubinemia, or clinically manifest as jaundice, indicates raised systemic bilirubin level due to alteration in bilirubin catabolism. Its high saturation leads to the entrapment of bilirubin pigments in dental hard tissue thus exhibiting green teeth. As for the intensity of green colour, it is described as directly proportion with the duration and degree of jaundice whilst some author described it as dependable on the development of enamel.

Conclusions: Green teeth occurs due to the elevated bilirubin saturation which leads to the integration of the pigments to dental tissue. But the varying intensity of green colour are multifactorial.