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To cite this article: Joana Loureiro, Luísa Bandeira Lopes & Irene Ventura (2019) Early childhood caries in five to seven-year-old children, having as variants the mode of delivery and mutans streptococci colonization: a pilot study, *Annals of Medicine*, 51:sup1, 117-117, DOI: [10.1080/07853890.2018.1562724](https://doi.org/10.1080/07853890.2018.1562724)

To link to this article: <https://doi.org/10.1080/07853890.2018.1562724>



Published online: 28 May 2019.



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excellent option for this type of trauma, presenting aesthetic as well as functional results in a three-month follow-up.

Discussion and conclusions: Some authors report that dental avulsion is one of the most serious lesions that depend on the prognosis and the attitude taken directly after the trauma [1–3]. The immediate reimplantation of the tooth in the alveolus is described as a treatment of choice. The condition of the periodontal ligament cells of the avulsed tooth depends on the storage environment and extra-oral duration. After an external exposure of 60 minutes, the cells are no longer viable making their prognosis highly unfavorable. Studies suggest the use of a flexible splint for about two weeks and endodontic treatment. Reimplantation may have a high success rate, but some of the teeth may be lost *a posteriori* [3]. In this case, the prognosis of the avulsed tooth should be considered unfavorable since it was transported in an unsuitable vehicle (dry) and reimplanted about 90 minutes after the trauma. However, in a 3-month follow-up, the tooth presented decrease of the apical lesion, interruption of root resorption, aesthetics and a satisfactory function.

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DOI: 10.1080/07853890.2018.1562723

Early childhood caries in five to seven-year-old children, having as variants the mode of delivery and mutans streptococci colonization: a pilot study

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Introduction: The oral cavity is colonized by a variety of microorganisms, including bacteria, fungi, viruses and protozoa [1]. Early oral colonizers are related to the mode of delivery, personal relationships, and the surrounding environment. These will be responsible for subsequent colonization, which will lead to a more complex and stable ecosystem in adult life [2]. The first exposure to microorganisms in children born by vaginal delivery occurs during passage of the vaginal canal, while children born by caesarean section have their first contact with the mother's skin and with medical equipment [3]. *Streptococcus Mutans* is recognized as the main bacteria etiological factor of dental caries in humans [4]. The initial acquisition of *Streptococcus mutans* can be influenced by several factors, such as bacterial levels in maternal saliva, low birth weight, poor oral hygiene, low socioeconomic and educational level, early eruption of primary teeth, prolonged bottle feeding and still high consumption of sucrose [5]. It is documented that children with caries in a deciduous dentition have a higher risk of developing caries in the final dentition, leading to life-long oral health consequences [6]. The aim of this study was to verify the relationship between the type of delivery (vaginal/ caesarean) and colonization of *Streptococcus Mutans* and establish a relationship between the colonization of *Streptococcus Mutans* and the early caries in children aged 5 to 7 years.

Materials and methods: The Committee of Ethics of the Egas Moniz Cooperativa de Ensino superior CRL approved this study unanimously. All participants signed an informed consent. This study was carried out in the Pediatric Dentistry clinics of the Egas Moniz University Clinic. The sample consists of 40 children, between 5 and 7 years of age. Saliva samples were collected to quantify the density of *Streptococcus Mutans* present in the oral cavity. The CRT® bacteria test from Ivoclar Vivadent was used. The mother of each child completed an inquiry that contained socio demographic questions about pregnancy, childbirth, hygiene and eating habits of children, and the DMFT index of the children was calculated. Data were submitted to a descriptive and inferential statistical analysis, using the Chi-Square and Mann-Whitney, Fisher and Kruskal-Wallis tests in IBM SPSS Statistics 24®.

Results: There was no relationship between the type of delivery and the colonization of *Streptococcus Mutans*. Children with high values of caries index had a higher density of bacterial colonies. ($p=0.036$)

Discussion and conclusions: Despite the results, it would be beneficial to carry out new studies in order to facilitate the development of strategies capable of preventing or delaying the colonization of *Streptococcus mutans* in children.

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DOI: 10.1080/07853890.2018.1562724

Dental avulsion of a maxillary central incisor: a case report

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Introduction: The avulsion of a tooth is defined as a complete displacement from its alveolus.[1] Dental avulsion of permanent teeth is considered one of the most severe and aggressive dental injuries. According to dental trauma studies in different populations, it comprises from about 0.5-7.75% of the total of dental injuries, being more frequent between 9 and 10 years of age [2–6]. The purpose of this study was to evaluate the success of existing protocols when dealing with dental avulsion.

Materials and methods: The informed consent in use was signed at the pediatric service of Clínica Universitária Egas Moniz. A 7-year-old female patient suffered craniofacial trauma with avulsion of the upper right central incisor (URCI) and enamel-dentin coronary fracture of the upper left central incisor (ULCI). The avulsed tooth, with open apex, was transported in milk and reimplanted after 16 hours. At Clínica Universitária Egas Moniz pediatric emergency service, the URCI was carefully cleaned from non-viable tissue. It underwent extra-oral endodontic treatment with an apical MTA plug, filled with thermoplastic gutta-percha and later closed with composite resin. Subsequently, under local anesthesia, the clot was removed from the alveolus and irrigated with saline solution. The tooth was reimplanted into the socket and stabilized with semi-rigid splint to adjacent teeth for 4 weeks. The ULCI was sealed with glass ionomer and later restored with composite resin. The patient was medicated with amoxicillin and clavulanic acid for 8 days, being instructed to a soft diet and to avoid sports practice. Follow-up appointments at 7 days, 4 weeks with splint removal, 3, 6 and 9 months. At 3 months, the ULCI presented with necrosis, so endodontic treatment was performed. Last follow-up was at 18 months.

Results: Clinical evaluation after more than one year showed absence of clinical symptoms and radiographic images compatible with periapical health.

Discussion and conclusions: The URCI suffered ankylosis with radiographic loss of periodontal ligament space, and slight root resorption. These findings are in agreement with the expected complications in the literature. Similar studies agree that the prognosis of the treatment of this trauma is deeply influenced by on-site actions and care taken shortly after the accident [1–8]. However, the patient was allowed to maintain aesthetic, functional and physiological function, as well as preservation of the alveolar contour.

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