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Description

- Female, 7-years-old, non relevant medical records.
- The patient was referred to the Postgraduate Pedo clinic at FMDUL, where a diagnosis of mild hypomineralization on teeth 36 and 46 with carious lesions; and severe hypomineralization on teeth 16 and 26 with extensive carious lesions and post-eruptive enamel breakdown was made. Extensive carious lesions were also detected on tooth 54, with pulp involvement on primary molars, teeth 55, 65, 75, 74, 84 and 85.



Figure 1: Preoperative intraoral photographs



Figure 2: Panoramic x-ray



Figure 3: Intraoperative photographs

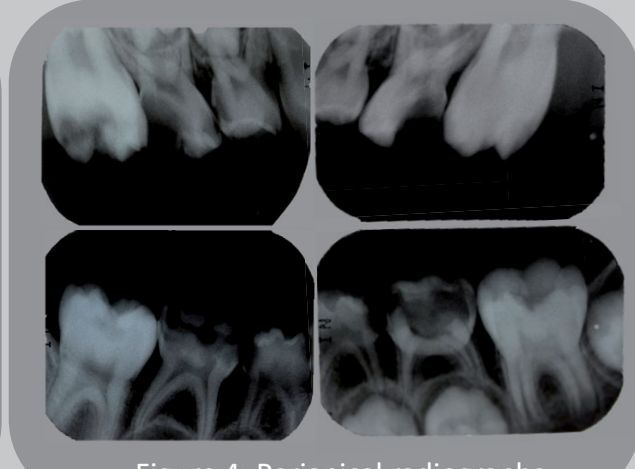


Figure 4: Periapical radiographs

- Due to the clinical signs and symptoms of pain, pulp involvement, need for immediate treatment of all lesions, sensitivity and difficulty in achieving adequate anesthesia of hypomineralized teeth and lack of cooperation of the child through the use of basic techniques of behaviour management, it was recommended to perform the treatment under general anesthesia.
- Treatments performed: Extraction of teeth 55, 65 and 75; Restoration with stainless steel crowns of teeth 16, 26 and 54; Pulpotomy and restoration with stainless steel crowns on teeth 74, 84 and 85; Composite resin restoration on teeth 46 and 36; Fissure sealant application on tooth 64; Polishing of labial pigmented surface of tooth 53 with *sof-lex* discs.



Figure 5: Postoperative photographs (follow-up 1 week)

Discussion

Molar-incisor hypomineralization (MIH) is characterized by demarcated qualitative defects of enamel, of systemic origin, that affect the first permanent molars, and may also involve the incisors.¹ The affected enamel looks porous and weakened, which can lead to post-eruptive enamel breakdown. The clinical approach of MIH presents several difficulties for the pediatric dentist due to the exacerbated sensitivity and difficulty of analgesia of these teeth, the rapid progression of carious lesions and the limited cooperation of the children. Choosing the right treatment is complex and depends on its severity. The treatment of hypomineralized molars with glass ionomer-based materials is not recommended in areas of high mechanical stress; and the adhesion of the composite resins is lower with a greater probability of failure at the interface with the porous enamel. According to current recommendations, the treatment of choice for teeth with severe MIH is the stainless steel crowns.²

In some cases, the treatment of this condition may be performed under general anesthesia (GA), which will allow to carry out the entire treatment plan at once, without the obstacles caused by the patient's anxiety, fear and lack of cooperation.³ This approach also presents some disadvantages such as the cost, the need to perform the treatments in a single session and limitations in the space maintenance management, since it does not allow the execution of the necessary apparatus. All these considerations should be taken into account when deciding which treatment plan to follow.

Conclusions

MIH adversely affects the overall health of children, quality of life, and socio-psychological status. Clinically it is a huge challenge hence its early identification will allow the monitoring of the first permanent molars so that remineralization and preventive measures can be applied once the affected surfaces are accessible, trying to minimize their consequences and to avoid the need for more invasive treatments. In specific cases the treatment of this condition can be performed under GA, which allows the therapeutic procedures to be performed quicker and comfortably.