

Management of Molar Incisor Hypomineralization: Foundational Articles and Consensus Recommendations. 2020

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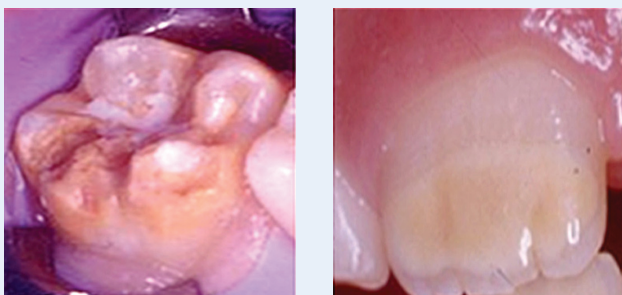
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IAPD Consensus Recommendations

Molar Incisor Hypomineralization (MIH) presents as demarcated, qualitative developmental defects of enamel affecting minimum one posterior tooth with or without involvement of the permanent anterior teeth. The severity of MIH defects varies from mild to severe, and the clinical appearance from creamy/white through yellow to brown color with or without post-eruptive enamel breakdown and possible tooth hypersensitivity. Hypersensitivity impairs tooth brushing and thus increases the risk of caries for MIH teeth (mainly molars). MIH prevalence has been reported to be from 2 to 40%. Presence of hypomineralized 2nd primary molars is associated with higher risk of MIH in permanent molars.



1. Early diagnosis allows provision of preventive or early restorative intervention in order to avoid progressive breakdown and possible pulpal inflammation and hypersensitivity.

2. Restorations in MIH affected teeth are associated with poorer long-term outcomes than unaffected teeth.

3. Long-term treatment concepts include decrease in hypersensitivity, remineralization, sealants, resin infiltration, micro-abrasion, composites, amalgams, veneers and crowns.

- Hypersensitivity may be managed by arginine desensitizing paste and fluoride varnish.

- MIH affected enamel may have compromised bonding for sealants and composites. Adhesive restorations cavity preparations should extend into sound tooth hard tissue for better adhesion.

- Amalgam restorations show high failure rates in atypically shaped molar MIH-preparations. The need for retentive cavity preparations might aggravate existing tooth substance defects.

- Glass ionomer cements have high failure rate in MIH, but may be used for temporization of teeth.

- For mild cases of MIH in incisors a combination of etching, bleaching and sealing of affected areas may be a conservative approach. For more severe cases, micro-abrasion or composite veneers may improve aesthetics. For severe cases of MIH in molars, full coverage crowns may be necessary for maintenance.

- Additional local anesthetic procedures may be necessary to manage hypersensitivity during restorative procedures.

4. Tooth extractions of first permanent molars with or without subsequent orthodontic alignment may be considered before the eruption of the second permanent molars when more than one tooth is affected with severe MIH and pain, considering the patient's dental age (preferably 8-9 years-old), and taking into account the occlusion and the status of the neighboring teeth.

5. Frequent recalls should be established for these patients, due to the high failure rate of the restorations in order to avoid secondary caries and more extensive breakdown.