



HYPERSENSITIVITY ASSESSMENT WITH WONG BAKER FACES SCALE IN PAEDIATRIC PATIENT AFTER HEMA-GLUTARALDEHYDE FORMULATION ON MIH LESIONS: A CASE REPORT

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INTRODUCTION: MIH is a developmental **enamel defect** affecting permanent **molars** and **incisors**, causing severe pain and **hypersensitivity** that lowers children's **quality of life**. Managing these compromised teeth is clinically challenging due to difficulties with local anesthesia and high restoration failure rates -especially in special healthcare needs (**SCHN**) or **low-compliance patients**- due to limited access to therapeutic alternatives (sealants, resin infiltration, indirect restorations, full coverage crowns). To address dentine hypersensitivity, particularly in patients aged eight and older with hard tissue loss, **HEMA-glutaraldehyde** (an aqueous solution of 5% glutaraldehyde and 35% HEMA) serves as an effective intervention. Its mechanism of action involves **glutaraldehyde precipitating proteins** through a reaction with **serum albumin** in the dentinal fluid, which subsequently induces the polymerization of the HEMA monomer.

METHOD: This case report describes a 14-year-old patient affected by **Jacobsen Syndrome**, who presented with hypomineralized lesions likely ascribable to MIH on teeth 1.1, 1.6, 2.6, and 4.6, with associated sensitivity to the cold air-blast test.

The **Wong-Baker FACES Rating SCALE** is a clinical **self-assessment tool** designed to help patients communicate the **intensity of physical pain**. It integrates **visual, numerical, and verbal elements** to facilitate the patient's subjective reporting. HEMA-glutaraldehyde was applied to the affected elements according to the following **protocol**: it was administered to the treatment area after drying the surfaces and gently rubbed for 30–60 seconds, then air-dried until the liquid layer disappeared, after which the area was thoroughly rinsed.

AIM: To assess the immediate post-application **efficacy** of the compound using the **Wong-Baker FACES Pain Rating Scale** in a patient with a genetic syndrome, presenting a **reduced capacity** to communicate pain alongside hypomineralization-related **discomfort**.

RESULT: The **initial measurement** of discomfort during the air-blast test corresponded to grade 8 (hurts whole lot); following treatment, **pain perception** had decreased to a level between 0 and 2 (no hurt-hurts a little bit).

REFERENCES:

1. Hoogveen et al. *Impact of treatment of molar-incisor hypomineralisation on children's oral health-related quality of life: a systematic review.*
2. Hjertberg et al. *Desensitization treatment in MIH-affected teeth: a systematic review*
3. H. Thomas et al. *Phase 2 Assessment of a New Functional Pain Scale by Comparing It to Traditional Pain Scales*

Wong-Baker FACES Pain Rating Scale



WONG-BAKER FACES SCALE



M.I.H. lesion of 1.1



M.I.H. lesion of 4.6, 1.6 and 2.6

CONCLUSION: In patients with **limited treatment options**, HEMA-glutaraldehyde formulations effectively reduce MIH hypersensitivity during **daily oral hygiene**, improving **risk factor control** for oral hard and soft tissue diseases.