

Isomatrix - The dissolvable matrix band: A feasibility study

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Abstract

Aim or Purpose: To ascertain the feasibility of using Isomatrix, a potential substitute for stainless steel metal matrix band used in restoring class II cavities.

Materials and Methods: Isomalt sugar and coconut oil were employed to produce Isomatrix. Both ingredients have been reported to be safe for human consumption. Ethical clearance was obtained from the Institutional Ethics Committee. Class 2 cavities were prepared on 10 typhodont teeth set in arch form. Participants of the study included postgraduate students and staff from various departments who were asked to place the Isomatrix. Later, 5 of the cavities were restored with Amalgam and 5 with RM-GIC. Restorations were assessed for width and tightness of the contact developed, overhanging restoration and marginal adaptation. Experience of participants with Isomatrix in comparison to the regular matrix band was recorded on a 5-point Likert Scale.

Results: Contact points and marginal adaptations of restorations were found to be appropriate. Isomatrix had greater ease of handling and greater ease of performing the restoration than conventional matrix bands. It also needed lesser time for restorations than conventional matrix bands.

Conclusions: Isomatrix offers several advantages over the regular matrix band such as absence of soft tissue trauma and lesser chances of causing marginal breakage of the restoration. The present study demonstrates feasibility of its usage and this product could be a suitable new alternative for conventional matrix bands class 2 cavity restorations.

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Biography

Ritvi Arvind is an ambitious dental graduate with an inclination towards medical research and innovation.. She is currently pursuing MDS in Conservative Dentistry and Endodontics at Bharati Vidyapeeth Dental College, Navi Mumbai.. She has hope to work as much as she can towards

the contribution of patient welfare and making healthcare more efficient through technology and accessible to all.