Clinical study – University of Bangalore, India
Investigation of effects on pain reduction in hypersensitive cervical dentine lesions.

This study reveals the clinical efficiency of GLUMA Desensitizer PowerGel for the treatment of dentine hypersensitivity.

Giving a hand to oral health.
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Objective
To investigate the effects of four dentine desensitizers on pain reduction in hypersensitive cervical dentine lesions.

Materials and Methods
The trial was designed as randomised, controlled, four-arm, investigator-masked study. Fifty subjects with at least one hypersensitive lesion in each of the four quadrants were allocated to the trial. The requested pre-operative pain, determined as response to 2 seconds air-blast (AB) and probe scratching (PS) should be ≥ 6 on a visual analogue scale (VAS; 0 = no through 10 = worst pain). Two calibrated operators applied randomly the four treatments on each subject: GLUMA Desensitizer PowerGel as positive control (GLU, Kulzer, Germany), MS Coat One F (MSC, Sun Medical, Japan), Nanoseal® (NAN, Nishin, Japan) and Teethmate® Desensitizer (TMD, Kuraray Noritake, Japan). The investigator assessed blindly the pain response using the two stimuli and recorded the patients’ VAS scores immediately after application, after 1 week, and after 1, 3 and 6 months. Statistical data treatment: ANOVA and post-hoc testing ($\alpha = 0.05$).

Results
Statistics revealed for all desensitizers a statistically significant reduction of sensitivity. But GLUMA Desensitizer PowerGel was the only tested desensitizer where the immediate post-operative decrease in scratching sensitivity remained stable after 6 months ($p < 0.05$). GLUMA Desensitizer PowerGel showed statistically significant superior drop of sensitivity after air-blast and scratching compared to the other tested desensitizers.

Conclusion
The new calcium phosphate based TMD proved almost as effective in reducing sensitivity as the positive control GLUMA Desensitizer PowerGel. But GLUMA Desensitizer PowerGel led statistical significantly to the best decrease of sensitivity in this test.

Comment
GLUMA Desensitizer PowerGel reduces hypersensitivity effectively and enduring.

Source
Mehta D, et al.: Efficacy of Dentin Desensitizing Agents: A Randomized Controlled Clinical Trial. J Dent Res 93 (Spec Iss B), 1115, 2014. The study was abbreviated, commented and summarised and all diagrams and titles have been established by Kulzer. GLUMA is a registered trademark of Kulzer. Teethmate® Desensitizer is a trademark of Kuraray, Nanoseal® is a trademark of Nippon Shika Yakuhin Co., Ltd.