A Prospective Multicenter Randomized Controlled Trial to Evaluate the Efficacy of Chitosan Hydrogel Paste in Comparison to Commercial Hydroactive Gel as a Wound Bed Preparation

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Source INDIAN JOURNAL OF PLASTIC SURGERY
Volume: 56 Issue: 01 Page: 44-52
DOI: 10.1055/s-0042-1759503

Published FEB 2023

Early Access DEC 2022

Indexed 2023-01-19

Document Type Article

Abstract Background This clinical trial aimed to evaluate the clinical efficacy of chitosan derivative hydrogel paste (CDHP) as a wound bed preparation for wounds with cavities. Methods This study enrolled 287 patients, with 143 patients randomized into the CDHP group (treatment) and 144 patients randomized into the commercial hydroactive gel (CHG) group (control). The granulation tissue, necrotic tissue, patient comfort, clinical signs, symptoms, and patient convenience during the application and removal of the dressing were assessed. Results The study was completed by 111 and 105 patients from the treatment and control groups, respectively. Both groups showed an increasing mean percentage of wound granulation over time when the initial wound size and comorbidity were adjusted ($F(10,198) = 4.61$; $p < 0.001$), but no significant difference was found between the groups ($F(1,207) = 0.043$; $p = 0.953$). The adjusted mean percentage of necrotic tissue of both groups showed a significant decrease over time ($F(10,235) = 5.65$; $p < 0.001$), but no significant differences were found between the groups ($F(1,244) = 0.487$; $p = 0.486$). Conclusion CDHP is equivalent to CHG and is an alternative in wound management and wound bed preparation for wounds with cavities.

Keywords **Author Keywords:** chitosan dressing; full-thickness wound; cavity wounds; granulation
Keywords Plus: DRESSINGS; BANDAGE; CHITIN

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Categories/ Classification

Research Areas: Surgery

Citation Topics : 3 Agriculture, Environment & Ecology › 3.85 Food Science & Technology › 3.85.741 Chitosan Packaging Films

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Funding agency	Grant number
Ministry of Science, Technology and Innovation (MOSTI) of Malaysia combined with SIRIM	

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Journal information

INDIAN JOURNAL OF PLASTIC SURGERY

ISSN 0970-0358

eISSN 1998-376X

Current Publisher THIEME MEDICAL PUBL INC, 333 SEVENTH AVE, NEW YORK, NY 10001

Research Areas Surgery

Web of Science Categories Surgery

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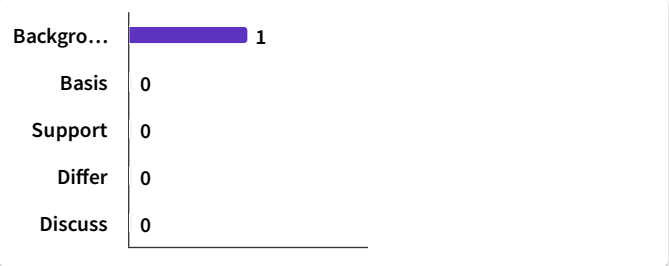

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