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A CLINICAL PROSPECTIVE STUDY ASSESSING THE EFFICACY OF A FENOLIC RICH HONEY AND PHI-5 DRESSING IN THERAPY RESISTANT AND COLONIZED BURN DEFECTS

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Introduction: Antibiotic-resistant and antiseptic-resistant bacteria are becoming an increasing problem in the management of burns. There is no ideal (topical) therapy for critical contaminated burns, most antimicrobials are either ineffective or too (cyto) toxic. Innovative antimicrobial strategies are needed to target the bacterial load and normalize the molecular environments of these wounds. This new wound dressing is impregnated with honey and Polyhydrated Ionogens (PHI-5) ointment. Honey has the potential to be an effective antimicrobial treatment. The PHI-5 formulation contains a synthetic blend of metal ions and is added to redress the possible imbalance in mmp/timp ratio and accelerates wound closure by enhancement of epithelialization.
Methods: Patients (n=21) with critical contaminated burns or residual burn defects after surgery or after conservative treatment (35 evaluable wound sites), were included. If possible a target wound area of at least 4x4 cm was selected for planimetric wound healing assessment. Dressing changes were standardized. The burns were cleaned with antiseptic solution and dressed with the impregnated acetate mesh carrier as primary dressing. Clinical assessment, measurements, digital photography, bacteriology and wound perimeter tracing was performed at least two times weekly.
Results: The treatment resulted in an overall full closure (spontaneous) of 94%. Mean healing time after start of therapy was 25.6 days [6 – 63]. We noted a reduction of exudate levels and wound slough and recruitment of controlled amount of granulation tissue with progressive epithelialization from the wound edges leading to stable wound closure. In addition we noted control of contamination with variable, often reduced microbiological quantities and species.
Conclusion: Wound closure and contamination control was obtained with this newly developed impregnated carrier in treated burn patients with difficult to heal wounds. There was good patient compliance and the majority of patients found the dressing material comfortable compared to standard therapy. Based upon the very promising results a randomized, clinical trial is both feasible and recommended in order to produce definitive, statistically significant findings.