Evaluation of cellulose and polyhexamethylene biguanide (Suprasorb® X+PHMB) in therapy of infected wounds

Maria Bruckner, Christoph Schwarz, Ferdinand Otto, Jürgen Heillinger, Thomas Wild
Department of General Surgery, University Vienna, Austria

Introduction:
Wound exudate management and control of bacterial colonisation are two main aims in modern wound treatment. The efficiency of a new wound dressing containing cellulose and polyhexamethylene biguanide (polihexanide, PHMB) are evaluated in this descriptive study.

Material and Methods
The dressing consists of biocellulose which is synthesized by Acetobacter xylina. The special prepared nanostructure allows biosynthesized cellulose to have a high-fluid capacity and formability. The product shows a good biocompatibility. Depending on the wound environment biocellulose can donate moisture or absorb excessive exudate. PHMB is integrated as a powerful antimicrobial agent. The study includes 40 patients, each suffering of delayed wound healing for at least 3 weeks, and signs of critical colonisation/infection. The progress of wound healing was evaluated by a colorimetric wound healing...