

In vitro evaluation of bacterial binding inTenderWet

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Successful wound management is mainly influenced by controlling the microbiology in the wound bed. It is of great importance to avoid development of increased bioburden or infection. Some wound dressings that provide a moist wound bed are not indicated for infected wounds. It was the aim of the presenting experiments to study the micro-organism absorption properties of TenderWet in vitro. TenderWet is a moist wound pad that is composed of a core of an activated super absorbent polymer (polyacrylate) in a cover of knitted fabric made of polypropylene. This polyacrylate wound pad is able to maintain a moist wound environment over a long time period (up to 24 h) even in wounds with low exudate production. Microbial films on agar plates and suspensions with micro-organisms were studied. Common wound bacteria (*S. aureus*, *S. epidermidis*, and *P. aeruginosa*) and a fungal strain (*C. albicans*) were studied and compared to gauze. The investigated polyacrylate wound pad reduced the number of all of these organisms significantly, both on the agar plate as in suspension (compared to the control and to gauze). The experiments show that the super absorbent wound pad which is activated with Ringer's solution is able to attract and retain microorganisms.

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