A comparative study of various dressings and their efficacy in second-degree superficial burns

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Second-degree superficial burns are prevalent, with scalds in extremities being the most frequent cause. They are treated initially with dressings such as wet collagen and nanocrystalline silver, and they mostly heal by conservative means, rarely requiring skin grafts. Here we aim to compare the efficacy of nanocrystalline silver and collagen dressings for second-degree superficial burns and to establish a standard protocol for managing such burns. It indicates that nanocrystalline silver dressings are more effective than collagen dressings in promoting faster epithelialization of second-degree burns and are associated with lower pain levels during treatment. However, there is no significant difference between the two groups regarding the need for split skin thickness grafts.

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for the wound dressing of superficial IIA-degree burns in major burn units. Instead, the choice of dressing is typically determined by the surgeon. At SRM Medical College Hospital, collagen and nanocrystalline silver are the two most frequently used dressings for superficial IIA-degree burn wounds.

Nanocrystalline silver is a synthetic, antimicrobial nanocrystalline silver-based impregnated dressing that has been used for treating burn wounds for a long time. The dressing is done after moistening it in distilled water, and it can be left intact over the wound bed for seven days, during which the nanocrystalline silver particles are delivered; thus, no change of dressing is required[2–7]. On the other hand, wet collagen is sterile. Collagen sheets of bovine origin are packed in a preservative medium, which are to be washed off with normal saline and then applied to burn wounds after thorough wound wash to remove all necrosed skin which is possible only under anaesthesia as it is excruciating. It is then dried with a hand dryer to