

Action Mechanisms and Indication of Silicone Gel Sheeting for Scar Management

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Despite the widespread use of silicone gel sheet for the treatment of hypertrophic scars and keloids, its mechanism of action and effective usage remain undetermined. Here, previous papers are reviewed and clinical application and action mechanisms of silicone gel sheets are discussed.

Based on our analysis, tensile reduction and protection from external mechanical forces are important mechanisms of silicone gel sheeting. Moreover, it was found that the materials of gel sheets should not be limited to silicone. Ideal gel sheets should (1) keep adequate moisture on the skin, (2) protect against external mechanical forces and attach to the skin tightly but not cause contact dermatitis, and (3) have similar thickness and softness to skin (thick and soft or thin and hard).

Key Words : keloids, hypertrophic scars, silicone gel sheeting, mechanical force, action mechanisms