

搶救反面 MEEK 式擴皮墊植皮於大面積燒傷病人之成功案例

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“Upside down” Meek skin graft salvage in critical burn patient—a case report

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Introduction:

Limited and precious autologous skin donor site increases difficulty of skin grafting in the large burnt BSA patient. The MEEK micrografting technique expands STSGs to a large ratio to achieve early wound closure in case of extensive skin defects. We reported a salvage procedure of accidentally upside-down MEEK skin graft on the pleated Aluminum foil instead of pleated fabric gauze with skin graft “take” eventually.

Case presentation:

A 25-year-old female suffered from dust explosion flame burn injury with deep II~III degree 61% burned TBSA over her face, trunk and four limbs. Immediate limbs escharotomy and serial debridement with following cadaver skin grafting and then staged autologous mesh STSGs underwent. Due to limited skin donor sites (twice from scalp and left upper thigh for previous mesh STSGs), we used MEEK micrografting technique for covering her bilateral lower extremities skin defect. We harvested her right upper thigh STSGs (8/1000 inches thickness), placing the grafted skin with dermal side down on 15 pieces of cork plates (1:6 expansion ratio). Following machine cutting and glue spray, we accidentally put 3 pieces of the cork plates on the pleated Aluminum foil instead of pleated fabric gauze. The tacky skin islands firmly adhered to the foil. We tailored these 3 upside-down grafted skins into 2.5 x 1.5 cm² foil stamps with average 6 skin islands each piece. We used skin staple for each foil fixation. Double layers Bactigras (Chlorhexidine Acetate Gauze) and Aqua-β iodine wet sponge covered then, and elastic bandage applied. Without peeled off the Bactigras, daily changing the Aqua-β iodine wet sponge for 6 days. On 7th post-OP day, we peeled off the foil and the skin graft islands were successfully taking.

Discussion:

For extensive skin defects in large burn injury patient with limited skin donor sites, MEEK micrografting achieves early wound closure. However, the procedure steps are cumbersome and not allowed to re-do. Once an error happened, not to get rid of the precious skin graft, a salvage method comes to rescue. We used the concept of stamp skin graft and adequate fixation, the upside-down MEEK skin graft did take.

Conclusion:

Tailored upside-down MEEK skin graft into stamps is a good salvage method for extensive skin defect patient.