

## TRAUMATIC WOUNDS COVERAGE WITH SKIN MICRO IMPLANTATION

Priya Dharsan Subramaniam<sup>1</sup>, Kelvin Chiang Ming Weng<sup>1</sup>, Haravin Rasendren<sup>1</sup>, Mahazura Mat Lawi<sup>1</sup>

<sup>1</sup>Hospital Sultanah Aminah

**Introduction:** Skin provides physical barrier to our body. Degloving traumatic wound often associated with skin loss, where skin grafting are often employed to cover its defect. Various techniques of microcolumn skin grafting were described for expanding the effective surface area of autologous skin grafts for more economical usage of available skin grafts mainly in burn trauma. We reviewed a trial technique of skin micro implantation on a series of traumatic wounds in our centre.

**Discussion:** Three different patients with traumatic wound defects were treated with skin micro implantation. The wounds were on daily dressing/ vacuum dressing prior to procedure. Skin micro implantation procedure were carried out on granulating wound without exposed bone or underlying structural tissues. They were located over different areas of the lower limb ( knee, lateral ankle, dorsal foot) One recipient wound was with positive swab Pseudomonas culture before skin implantation. Procedure was done under local anaesthesia in daycare OT. Skin autografts were taken from the lateral distal thigh, further dissect in minor pieces of less than 3mm. Required donor sites were relatively small with area of 3-5cm x 3cm They were scattered and embedded into the recipient wound of about 0.5mm depth. Wounds were covered with a thin layer of colloid gel on available ( hydrogel/ intrasite gel in our cases) with paraffin gauze. Wound was examined after one week and dressing was done carefully in weekly basis to avoid scrubbing off skin islands. All wounds were able to achieved implantation albeit with different successful rate. Scars were later evaluate with Vancouver scar scale.

**Conclusion:** Patients with wounds defects are benefited from skin micro implantation to accelerate wound healing and skin coverage. Skin micro implantation can be done under daycare with local anaesthesia on positive swab wound bed. It requires minimal donor site surface area as compared to STSG.