

Limited Donor Site for Split-Thickness Skin Graft (STSG) – Our Experience

Chieng ZL, Yogeshwarran N, Kong IH, Tan HP
Orthopaedic Department, Hospital Sibul, Sarawak, Malaysia.

INTRODUCTION

STSG is transfer of epidermis and part of dermis from one area of body to another, used to cover large healthy wounds with granulation tissue. This can protect the wound against pathogen and promote faster rate of wound healing.

CASE REPORT

31 year-old housewife, presented to Emergency Department with necrotizing fasciitis of right lower limb, in septicemic shock. After resuscitation and commencement of broad-spectrum antibiotic, she underwent extensive wound debridement, and subsequently admitted to Intensive Care Unit for close monitoring.

Intra-operatively, there were circumferential unhealthy subcutaneous tissue and fascia from her right foot extending upward to the inguinal region. Tissue culture reviewed the present of *Streptococcus pyogenes*, which is sensitive to Penicillin group. Besides multiple surgeries for wound debridement, there were also multiple cycles of Vacuum-Assisted Closure (VAC) dressing. Two stages of STSG were done for her, in which the donor site involving area from contralateral leg and her back.



Figure 1: Wounds after 1st Stage STSG



Figure 2: Wounds after 2nd Stage STSG

DISCUSSION

Extreme pain upon wound inspection has been one of the challenges, where spinal anesthesia is needed in Operation Theater, together with application of VAC dressing. Hypoproteinemia added the difficulty in the wound management of this patient by delaying the healing of granulation tissue.

Next, we encountered very limited donor site for STSG. Patient has to sacrifice her entire contralateral lower limb as donor, as well as her upper and lower back. Without the presence of dermatome machine in our center, the harvesting process for STSG is never been easy. Furthermore, the unsightly donor wound appearance caused by Hamby knife.

CONCLUSION:

STSG can provide fast recovery and functional skin. In such extensive wound, two stages operation can reduce the complication from prolonged surgery, especially this case require different positioning of patient in order to harvest the skin graft.

REFERENCES:

1. R. Shimizu and K. Kishi, "Skin Graft", Plastic Surgery International Vol. 2012; Pg 1-5