

# **Revolutionizing Major Burns Management with Single Stage Onlay Micrograft**

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## **Aims**

We have introduced onlay micrografting for our major burns to address the paucity of donor sites . This is the application of autologous 3x3mm split skin grafts on an allograft after burns excision.

## **Methods**

From January to October 2014, 8 consecutive patients with >30 % TBSA burns admitted to the SGH Burns Center. The first 4 (control) were managed with allografts . The subsequent 4 (study) were managed using onlay micrografts.

We analysed age, extent of burns, total surface area of allografts used and its cost, the number of surgeries and the length of hospital stay between the 2 patient groups. Statistical significance were analysed using the Student's t-test.

## **Results**

Compared to control, the study group had much lesser surgeries (10 vs 19.75), shorter length of hospital stay (51 vs 120.5 days), and less allograft used for each TBSA percent of burns (115.72 cm<sup>2</sup> vs 356.51cm<sup>2</sup>). These improvement results are all statistically significant (p<0.05) .

Micrografting has higher success on poor beds due to low metabolic demands and greater skin coverage expansion ratio (1:12). Disadvantages include poor appearance on healing and that the surgeries are relatively

labour intensive.

## **Conclusions**

Onlay micrografting is a lifesaving method that revolutionizes major burn care with >50% improvement in healthcare costs, time and burn resources. We have adopted onlay micrografting as part of the major burns protocol and further results will be presented in our new prospective burns database.

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