DERMATOLOGICAL SURGERY

GIGA SESSIONS OF NON CULTURED EPIDERMAL SUSPENSION TRANSPLANTATION IN STABLE VITILIGO TREATING ≥ 1000 CM2 AREA IN SINGLE SESSION.

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Introduction: Non-cultured epidermal suspension transplantation is an effective option in stable and refractory vitiligo. Conventional non-cultured epidermal suspension transplantation procedure can manage patches with size ≤ 300 cm2. Several sessions of this impact the quality of life and cause financial burden.

Objective: To establish that successful repigmentation is possible with single giga session of non cultured epidermal suspension transplantation in stable vitiligo patches ≥ 1000 cm2.

Materials and Methods: 15 stable vitiligo patients (11 females, 4 males; age range 22 – 36 years) included, 9 had generalized vitiligo, 6 segmental and total 32 lesions treated. Total area of the patch or combined area of multiple patches treated in single session was ≥ 1000 cm2.Ultra-thin skin graft was taken from lateral or anterior thigh under topical anesthesia. Cells separated from this after keeping the skin graft in recombinant protease at 4-80 C overnight. The recipient areas were dermabraded using fractional CO2 Laser and motorized dermabrader under either general anesthesia or spinal anesthesia. The cell suspension mixed with epidermal growth factor was transplanted over recipient area with,chlorhexidine gauze transparent film dressing and elastic adhesive bandage. After 2 weeks of procedure, patients were advised Narrow Band UVB exposure on alternate days. During 6-month follow-up period results were assessed based on the extent of repigmentation, colour match, and adverse events.

Results: Repigmentation (> 75%) was successful in 29/32 lesions (90.62%). Colour match at 6 months was excellent in 26/32 lesions (81.25%). No significant adverse events.

Conclusions: This study shows that with the overnight cold cell separation method using recombinant protease in non-cultured epidermal suspension transplantation procedure, can effectively treat patches of size ≥ 1000 cm2 in a single session. Higher yield of cells with cold method could play a significant role. This reduces the need for several sessions, reduces financial burden and need for taking too many leaves.