Is suction blister epidermal grafting a simple and reliable way to screen patients with large area vitiligo for ReCell treatment ?

AUTHORS: Zhifei Liu¹, Weiwei Li², Ang Zeng¹, Zhongping. Meng³, Shunming Cheng³, Chunyu Xu⁴, Yong Tao⁵, Zhenxing Shen⁶, Shuzhen Zhang⁷, Zuomei Li⁷

INSTITUTIONS : 1. PUMC hospital, Beijing, China. 2. Tsinghua Changgung hospital, Beijing, China. 3. Borun vitiligo hospital, Chengdu, China. 4. Shengjing vitiligo hospital, Haerbin, China. 5. Huaxia Vitiligo hospital, Nanjing, China. 6. Xinjundu vitiligo hospital, Urumuqi, China. 7. Kunming vitiligo hospital, Kunming, China.

Introduction

ReCell treatment (autologous non-cultured epidermal cell suspension grafting, ANECSG) is a method of choice for surgical treatments for large area and stable vitiligo, but not all ReCell treatments are effective and not all patients are fit for the treatment. Thus, a simple and reliable way to screen those suitable for ReCell treatment is urgently necessary and of important significance.

Objective

to explore if suction blister epidermal grafting (SBEG) is a simple and reliable way to screen patients with large area vitiligo for ReCell treatment.

Materials and Methods

49 patients with large area and stable vitiligo (lesion area $\geq 150\text{cm}^2$, stable for ≥ 6 months) were selected. Among which, 36(G1) have had successful SBEG, 13(G2) haven't had SBEG before ReCell treatments. All lesion areas were dermabraded and treated with ANECSG. Phototherapies (Excimer laser, wavelength of 308nm) start 15 days after surgery, continue twice a week for 3 consecutive months. Repigmentation rate was evaluated at 6 months after ReCell treatment. Results were graded as excellent, good, fair and poor according to repigmentation rate $>90\%$, between 71%-90%, 51%-70% and $\leq 50\%$, respectively.

Fig 2 Recell kit treating procedure

Results

Results: In G1, 18 patients (50%) were excellent, 13(36.6%) were good, 5(13.9%) were fair, none were poor. In G2, 2(15.4%) were excellent, 3(23.1%) were good, 4(30.7%) were fair, and 4(30.7%) were poor. Total repigmentation rates $\geq 71\%$ and $>90\%$ were both significantly higher in G1 than that in G2 ($P < 0.01$, $P < 0.05$). None in 2 groups presented complications such as infection and scarring.

Conclusion

SBEG is a simple and reliable way to screen patients with large area and stable vitiligo for ReCell treatment.

Pre-OP 3 months Post SBEG

Fig 3 Screen patient with SBEG

Pre-OP 7 days post-ReCell

3 months post-ReCell 6 months post-ReCell

Fig 4 Comparison of the vitiligo after Recell treatment

Fig 1 Recell kit

Reference

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