

## Outcome of Comparison between Partial Thickness Skin Graft Harvesting from Scalp and Lower Limb for Scalp Defect: A Clinical Trial Study

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**Abstract :** Background: Partial-thickness skin graft is the cornerstone for scalp defect repair. Routine donor sites include abdomen, thighs, and buttocks. Given the potential side effects following harvesting from these sites and the potential advantages of harvesting from scalp (broad surface, rapid healing, and better cosmetics results), this study is trying to compare the outcomes of graft harvesting from scalp and lower limb. Methods: This clinical trial is conducted among a sample number of 40 partial thickness graft candidates (20 case and 20 control group) with scalp defect presenting to plastic surgery clinic at Besat Hospital during the time period between 2018 and 2019. Sampling was done by simple randomization using random digit table. Data gathering was performed using a designated checklist. The donor site in case group and control group was scalp and lower limb, respectively. The resultant data were analyzed using chi-squared and t-test and SPSS version 21 (SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp). Results: Of the total 40 patients participating in this study, 28 patients (70%) were male, and 12 (30%) were female with and mean age of  $63.62 \pm 09.73$  years. Hypertension and diabetes mellitus were the most common comorbidities among patients with basal cell carcinoma (BCC) and trauma being the most common etiology for the defects. There was a statistically meaningful relationship between two groups regarding the etiology of defect ( $P=0.02$ ). The most common anatomic location of defect for case and control groups was temporal and parietal, respectively. Most of the defects were deep to galea zone. The mean diameter of defect was  $24.28 \pm 45.37$  mm for all of the patients. The difference between diameter of defect in both groups was statistically meaningful, while no such difference between graft diameter was seen. The graft 'Take' was completely successful in both groups according to evaluations. The level of postoperative pain was lower in the case group compared to the control according to VAS scale, and the satisfaction was higher in them per Likert scale. Conclusion: Scalp can safely be used as donor site for skin graft to be used for scalp defects, which is associated with better results and lower complication rates compared to other donor sites.

**Keywords :** donor site, leg, partial-thickness graft, scalp

**Conference Title :** ICPSMAP 2020 : International Conference on Plastic Surgery and Medical Aesthetic Practice

**Conference Location :** New York, United States

**Conference Dates :** December 10-11, 2020