Slight Improvement of the Effectiveness in Treating Cleft Lip Scars with Silicone Gel versus Silicone Sheet: A Secondary Analysis

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Introduction:
Silicone sheet is often used for preventing cleft lip scar postoperatively with concerns of ingestion, application site irritation, and short application time. Silicone gel has day-long application duration with better safety. Previous study suggested no difference between forms of silicone in treating cleft lip scarring without controlling potential confounders. We aimed to evaluate the effectiveness of silicone gel versus sheet in a different model, controlling surgical gap, side, and patient effects.

Method:
Data was retrieved from previous clincal trial with additonal information from the author. In short, silicone gel/sheets were randomly assigned to the patients. Clinical scar evaluation scores (VSS, VAS, width) were measured 6 month after application. Transformation was performed for normailzation and direction purpose. Generalized linear model was performed controlling the measurement, age, gap and patient effects with Tukey's adjustment. Sensitivity analysis was performed to compare the result.

Result:
There are 29 observations in sheet group with mean VSS 0.46 (SD 0.11), mean 10/VAS 1.42 (SD 1.20), and mean width 2.75 (SD 1.44). There are 26 observations in gel group, with mean VSS 0.41 (SD 0.13), mean 10/VAS 1.35 (SD 0.18), and mean width 2.06 (SD 1.71). Silicone gel had a lower score compared to sheet after tukey's adjustment. (p=0.0048, 95CI: 0.05, 0.26). Sensitivity analysis showed a similar result.

Conclusion:
Silicone gel appeared to slightly improve post-operative cleft lip scars compared to silicon sheet. With the advantage of safety and patient-friendly features, silicon gel could be recommended for postoperative care of cleft lip scars in infants.

Keywords—*silicone gel, surgical wound care, infant wound care, cleft lip*



Biography

Yensheng has completed his MD at Chang-gung Memorial Hospital, Taiwan in 2015. He devoted to clinical studies that discover potential treatments for surgical wounds. He also engaged in discovering investigation techniques and treatment for allergic diseases and cancers. Yensheng is current a graduate student at Yale University School of Public Health.

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