

Wound Care & Regenerative Medicine 2019: Slight improvement of the effectiveness in treating cleft lip scars with silicone gel versus silicone sheet: a secondary analysis - Yensheng Wang - USA Chang-gung Memorial Hospital

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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 daylong 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.

Methods:

Data was retrieved from previous clinical trial with additional information from the author. In short, silicone gel/sheets were randomly assigned to the patients. Clinical scar evaluation scores (VSS, VAS, and width) were measured six month after application. Transformation was performed for normalization 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.

Results:

There were 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 were 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 ($p=0.0048$, 95 CI: 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, silicone gel could be recommended for postoperative care of cleft lip scars in infants.