The goal for syndactyly release is to create a more normal web space in order to improve the function and appearance of each finger and incur the minimum amount of long-term morbidity. In syndactyly release or web reconstruction, the use of full-thickness skin grafts is time-consuming and often associated with graft contraction, web creep, partial graft loss, hyperpigmentation, hair growth following puberty, and hypertrophic scarring. This study describes the use of a bilobed flap for formation of web spaces in the treatment of syndactyly release, which decreases the graft need and also avoids the use of skin grafting in syndactyly release and web reconstruction cases. The present technique was developed based on the concept for the beneficial use of the dorsal hand skin by lowering or eliminating the need for a skin graft.

Methods: A retrospective review of this procedure was performed for 15 web space reconstructions. Patients were aged 20 to 23 years. The mean follow-up period was 7–12 months (mean 7±3.2). The operations were performed for the beneficial use of the dorsal hand skin by lowering the need for a skin graft. The flap was on the dorsum of the hand and proximal phalanx, and was used for web formation.

Results: Surgery was completed without skin grafting in nine cases of 14 web spaces: two of them were complex/complete, and two of them were simple/complete syndactylies. We used a skin graft in one patient because of triangular flap necrosis in a second operation. The use of a bilobed flap allowed the construction of web spaces, providing satisfactory cosmetic outcomes. No partial necrosis or complications were observed in bilobed flaps. No secondary correction was needed during the follow-up period. The webs were found to be thin, soft, sensitive, and close to their natural appearance. Late complications such as contractions in incision lines or web creep were not observed.

Conclusion: We conclude that the bilobed flap can effectively be used in the treatment of primary and secondary syndactyly cases for web formation and reconstruction, especially in an adult population in which the skin on the dorsum of the hand is more pliable, thus you may be able to avoid problems related to the skin graft.