Expanded bi-pedicled “sleeve” flap for reconstruction of the upper extremity after large circumferential nevus excision in children

Yair Shachar
Hadassah University Medical Center, Israel

**Background:** Large congenital melanocytic nevi entail significant medical and cosmetic ramifications for patients and families. Reconstruction is a challenging endeavor, especially when the lesion is present on the limbs. The literature describes various methods by which a plastic surgeon can address reconstruction; yet, to date, there has been no series describing a method that provides consistent results with low complication rates. In this study, we describe our surgical technique for reconstruction of the upper extremity after excision of large circumferential CNM with a pre-expanded bi-pedicled flap, namely the “sleeve” flap.

**Methods:** A systematic review of our database of pediatric patients treated for large and giant nevi was performed. Patients with large and giant circumferential upper extremity nevi were retrieved, and their charts reviewed for demographics, number of procedures performed, duration of follow-up, and complications.

**Results:** Over a course of 12 years, eight patients with large or giant circumferential nevi of the upper extremity were treated at our institution with “sleeve” flap reconstruction. Mean follow-up time was 36 months. A single complication was seen. All reconstructions achieved satisfactory results, both functionally and cosmetically.

**Discussion:** We describe our surgical approach for treating upper extremity large and giant circumferential nevi with pre-expanded bi-pedicled “sleeve” flaps. When properly planned and executed, this technique enables successful treatment of large and giant nevi of the arm and the forearm. Although arduous and complex, the process yields excellent aesthetic results with low complication rates. This technique is promising as the reconstructive option of choice for these difficult lesions.

**Biography**
Shachar is the chief resident at Hadassah Medical center plastic and reconstructive surgery. Working under the supervision of Prof Alexander Margulis, the department has become a reference center in Israel for pediatric plastic surgery. Our chief expertise is pediatric tissue expansion for congenital and acquired deformities. As such, we perform more than a hundred cases of reconstructions for congenital melanocytic nevi annually.

yairshach@hadassah.org.il