The Newborn Butterfly Project: A New Protocol for Molding Ears
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Purpose: Secondary to circulating maternal estrogens, a baby’s ear cartilage is unusually plastic during the first few weeks of life, providing an opportunity to correct ear deformities by molding. If molding is initiated during the first few days of life with a more rigid molding system, we hypothesized that the duration of treatment could be reduced.

Methods: An interdisciplinary team comprised of neonatologists, pediatricians, audiologists, plastic surgeons and otolaryngologists identify and assess all infants born with ear deformities. When appropriate, ear molding is initiated in the newborn nursery. To assess the outcomes of this approach, we conducted a prospective, IRB approved study in which parents were surveyed initially, immediately after treatment and at 6 and 12 months. Parents were asked questions regarding demographics, medical history, family history, and treatment satisfaction. Physicians also independently assessed patient outcomes.

Results: 90 ears in 56 patients underwent ear molding using the Earwell Infant Ear Correction System. 93% of the children had the device placed while in the newborn nursery. Average treatment was 15 days and patients were followed for 6-12 months. 95% of the deformities were corrected. Complications were limited to mild pressure ulcerations that were treated with topical bacitracin. 75% of the parents believed that the deformity would lead to psychological harm. None of the parents found the treatment difficult and all stated that they would repeat the procedure.

Conclusions: The molding period can be reduced from 6-8 weeks to 2 weeks by initiating molding during the first week of life and using a more secure and rigid device. Through an interdisciplinary approach, we were able to identify patients with ear deformities in the newborn nursery, correcting the deformity earlier and faster than has been previously published and eliminating the need for surgical correction in many children.