Ear Molding In Newborn Infants: Dispelling the Myths about Ear Deformities

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**Philemon Eric Payne, MD\(^1\), Damien Mitchell\(^2\), Matthew Trovato, MD\(^3\), Thomas Kevin Cook\(^1\), Richard Y. Ha\(^3\) and Michelle Kravitz\(^2\),
(1)Craniofacial and Plastic Surgery, The Craniofacial and Plastic Surgery Center of Houston, Houston, TX, (2)Pediatrics, Forest Lane Pediatrics, Dallas, TX, (3)Craniofacial and Plastic Surgery, Medical City Children’s Hospital, Dallas, TX

**Purpose:**

There are numerous myths about infant ear deformities: 1) deformities of the newborn infant ear are a rare and inconsequential occurrence, 2) misshapen ears in the newborn self-correct, 3) infant ear molding is ineffective and surgery is the best option, 4) infant ear molding is tedious and time consuming.

According to the literature and our experience these myths are not only incorrect; they encourage inappropriate decisions that leave the parents and the child with surgery as their only option. The use of early ear molding has simplified treatment of these deformities. Early diagnosis is the primary key to this mode of therapy but it remains the primary obstacle.

**Methods:**

A retrospective chart review was performed. The types of deformities, initiation and duration of treatment, and outcomes were measured. These deformities were treated with the EarWell\(^{TM}\) Infant Ear Correction System developed by Beacon Medical. Pre and post-treatment photographs were used to assess the outcomes and rated as excellent, good, or poor as well as number of relapse.

**Results:**

Three physicians treated a total of 94 newborn infants with 171 ear deformities. The average initiation of treatment was at 8 days of age and duration of treatment ranged from 6 to 8 weeks with an average of 7.3 weeks. The average visit was once every ten days. The types of ear deformities include: Stahl’s ear, constricted ear, lop ear, prominent or cup ear, conchal crus, cryptotia, and helical rim deformity. Figure 1 demonstrates the most common types of infant ear deformities. The preoperative and postoperative results were rated with a good to excellent result achieved in approximately 90 percent. Eight minor complications occurred and included skin excoriations or breakdown. No cartilage erosions were seen in any patients at final follow-up.

**Discussion:**

Previous study by Byrd et al of 100 consecutive births in a large newborn nursery showed an alarming 39% misshapen ear at birth. By the end of the first week 30% of the ears had self corrected leaving 70% with persisting deformity. This study along with previous prospective studies show that on average 15% of newborns have ear deformities that do not self correct after the
first week of life. Successful outcomes were achieved when molding was initiated by the end of the first week of life. If initiated after the third week of life, outcomes only achieved excellent results in 50% of ear deformities treated.

Conclusions:
The EarWell™ Infant Ear Correction System is an easy and universal system successful in achieving good to excellent results in 93.5% of ear deformities. This study confirms that early and proper diagnosis of ear deformities is essential in achieving excellent results.