Improving Facial Symmetry

in 271 Patients with Hemifacial Microsomia

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Happy, Carefree, and Confident
Hemifacial Microsomia
Microtia
Facial Asymmetry
Classification


O.M.E.N.S. (1991)

O.M.E.N.S + (1995)

HEAR MAPS

Concise and Comprehensive
HEAR MAPS

Ear
H E A R M A P S
HEAR MAPS: A classification for congenital microtia/atresia based on the evaluation of 742 patients


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ABSTRACT
Objective: Describe anatomical and radiological findings in 742 patients evaluated for congenital aural atresia and microtia by a multidisciplinary team.

Develop a new classification method to enhance multidisciplinary communication regarding patients with congenital aural atresia and microtia.

Methods: Retrospective chart review with descriptive analysis of findings arising from the evaluation of patients with congenital aural atresia and microtia between January 2008 and January 2012 at a multidisciplinary tertiary referral center.

Results: We developed a classification method based on the acronym HEAR MAPS (Hearing, Ear [microtia], Atriocele, Remnant earlobe, Mandibular development, Asymmetry of soft tissue, Analysis of the facial nerve and Syndromes). We used this method to evaluate 742 consecutive congenital atresia and microtia patients between 2008 and January of 2012. Grade 3 microtia was the most common external ear malformation (78%). Pre-operative Jackson-Pratt scale was 9 (13%), 8 (23%), 7 (19%), and 6 or less (22%). Twenty-three percent of patients had varying degrees of hypoplasia of the mandible. Less than 10% of patients had an identified associated syndrome.

Conclusion: Patients with congenital aural atresia and microtia often require the intervention of audiology, otology, plastic surgery, craniofacial surgery and speech and language professionals to
Soft Tissue Asymmetry

742 patients

A1  None ..................  79%
A2  Mild ....................  15%
A3  Moderate ...............  4%
A4  Severe ..................  2%
Mandibular Distraction

Enthusiasm has diminished
Mandibular Distraction

- Symmetry is short lived
- Orthognathic surgery
- Regenerated bone difficult
- Burden of care
Mandibular Distraction

- Tooth bud injury
- Cheek scar
- Hardware failure
- Premature bony consolidation
Fat Augmentation
Method

- Ear Reconstruction 1/08 - 8/21
- Prospective Study
- Simultaneous Fat Grafting
- Demographics, HEAR MAPS, Fat, volume, Complications, Photos
Results

- 1360 pts, 274 (20.1%)
- Mean volume = 14.3 cc’s
- Volumes (5 cc’s to 40 cc’s)
- No operative complications
- Fat hypertrophy 9 patients (3.2%)
7 years  14. cc's
Examples

Single outpatient procedure
4 months 14 cc's
1 month 16 cc’s
4 weeks (18 cc’s)
4 weeks (18 cc’s)
1 month (24 cc's)
2.5 months (8.5 cc's)
3.5 years   12 cc’s
2 years. 15 cc’s
4 months. 15 cc's
1 year  20 cc's  (2)
10 months (31 cc’s)
1 year (35 cc's)
1.5 years (35 cc’s)
Fat augmentation is an underutilized, but a very, effective, economical and long lasting method of improving facial symmetry.
Thank You
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