Three Options for Profound Unilateral SNHL: BAHAs, BICROS and Transcranial CROS Hearing Aids

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Overview

• Definition/Candidacy Criterion of Profound Unilateral SNHL
• Three Treatment Options
• Counseling
• Fitting Devices
• Summary
• Candidacy Criterion: Patients with Profound Unilateral SNHL, other ear has normal to mild hearing loss through 4000 Hz
• Medical clearance
Bone Anchored Hearing Aids

- Definition: A hearing aid that is surgically placed that bypasses the outer and middle ear and stimulates the cochlea directly through bone conduction
- Surgery option
- Cochlear Product
  - [http://www.cochlearamericas.com/Products/2013.asp](http://www.cochlearamericas.com/Products/2013.asp)
BAHA evaluation

- Completed prior to surgery
- Complete audiological evaluation
- Aided testing with test BAHA in the soundfield
- Trial period with loaner BAHA
BAHA fitting

- Three months post-op
- Cleaning of site and device
- Fitting/Counseling
- Adjustment of trim pots
- Quick SIN/ aided soundfield
- Follow-ups
- Pediatric Fittings
Case Study

16 yr old female, sudden hearing loss AD
20% word discrimination AD, 100% AS
BAHA immediately recommended
BICROS

- Definition: Routes acoustic signal from profound SNHL side to better side which may also have hearing loss
- Pt wears two devices
- Wireless (Transmits sound via FM signal), BTEs, ITEs
• Fit better ear device first
• Set microphone balance to 3.0 to 6.0
• Only give patient one program at initial fitting
• Add transmitter side
• Recommend two week follow up
Case Study 1

- 64 yo male, sudden hearing loss AD
- Fit pt with Interton BICROS BTE hearing aids
Case Study 2

- 57 yo male, sudden hearing loss AS
- 78% word recognition AS, 100% word recognition AD
- Originally fit with Siemens Centra ITE AS in 2007
- Fit pt with Interton BICROS BTE hearing aids
Transcranial CROS

- Definition: Transmits acoustic signal from profound SNHL side to normal hearing ear via vibrations picked up by the better cochlea
- Pt wears one device
- Power ITE to Power CICs
Transcranial CROS fitting

- BTE, ITE or CIC power models
- Good fit/feedback program is important!
- Intra-aural attenuation of approximately 40-50 dB gain
- Follow up in two weeks
- Starkey Inteli Power D Full Shell
- Unitron Next power CIC

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<th>PEAK OUTPUT</th>
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Case Study

- 64 yo male, sudden hearing loss AS
- Previously fit with Phonak Savia 311 BTE hearing aid AS
- Fit with Starkey Intelli Power D FS AS
Counseling

Develop America’s Medical Airmen Today ... for Tomorrow

- Important to present all three options
- Disadvantages and Advantages of each
Counseling

• ASHA Leader 04 November 2008
  • Will my hearing return?
  • Will I have to wear a hearing aid?
  • Will I lose the hearing in my other ear?
  • How long will I have this hearing loss?
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59th Medical Wing

“Providing Great Care…Building Warrior Medics”