

Peter Monksfield², Piotr Skarzynski⁶, Kevin Green³, Christina Runge⁴, Stina Wigren⁷, Johan Ivarsson Blechert⁷, Mark Flynn⁷, Arjan Bosman¹, Emmanuel Mylanus¹

¹Department of Otorhinolaryngology, Radboud university medical centre, Nijmegen, The Netherlands, ²Department of Otorhinolaryngology, Queen Elizabeth Hospital, Birmingham, United Kingdom, ³Department of Otorhinolaryngology, Queen Elizabeth Hospital, Birmingham, United Kingdom, ⁴Department of Otorhinolaryngology, Medical College of Wisconsin, Milwaukee Wisconsin, United States of America, ⁵Department of Otorhinolaryngology, World Hearing Center, Institute of Physiology and Pathology of Hearing, Nadarzyn, Poland, ⁶Cochlear Bone Anchored Solutions, Mölnlycke, Sweden

Learning Objectives:

Objectives: Present the 6 months results of a multicentre, prospective investigation on the Cochlear™ Baha® Attract™ System.

Design: Fifty-four adult patients with hearing impairment, were included and underwent surgery in the current prospective cohort study. Follow-up visits were scheduled at 10 days, 4, 6 and 12 weeks, and 6 months. Main outcome measures are hearing performance (free-field audiometry, speech in quiet, adaptive speech in noise) with the Baha Attract System compared to the unaided situation and compared to a pre-operative test situation using the sound processor on a softband, safety of the Baha Attract System, hearing related quality of life, surgical information, sound processor magnet strength and magnetic retention force over time, and information on postoperative pain, discomfort, numbness and soft tissue status.

Results: The 6 months results of the multicentre will be presented for the main outcome measures.

Conclusions: The objective is to present data regarding the usability and clinical performance of the Baha Attract System in subjects with hearing impairment that are candidates for Baha surgery.

doi:10.1017/S0022215116004291

Bone conduction hearing devices in single sided deafness (R834)

ID: 834.2

Transcutaneous BAHA Attract Implants – Interim results at two years

Presenting Author: **Jaydip Ray**

Jaydip Ray¹, Panagiotis Dimitriadis², Ahmed Allam², Perdy Edwards²

¹Sheffield Teaching Hospitals NHSFT, ²Sheffield Teaching Hospitals

Learning Objectives: Transcutaneous bone conduction implants produce less soft tissue complications. Interim results show high patient satisfaction. Percutaneous devices can be converted to transcutaneous devices.

Introduction: Many soft tissue problems in bone anchored hearing solutions are related to their percutaneous nature. Tissue preservation and non skin penetration techniques help address these issues.

Methods: Prospective longitudinal study of 80 consecutive BAHA Attract patients (Sept 2013 and Feb 2016.) Data included indications, audiology, incision, surgery, skin thickness, fixture and postoperative follow up (including audiological, soft tissue, magnet types and usage).

Results: Total 80 patients implanted. Age range 4 – 86yrs. Male : Female ratio 47:33. Fifty six were adults and 24 paediatric. Indications were Conductive deafness (56%), Mixed hearing loss (16%) and Single Sided Sensorineural loss (28%). 22% were conversions from percutaneous devices. 10% cases were performed under local anaesthesia only. The incision in all cases was inferiorly facing “C”. Average surgical time 40 min. All had 4 mm fixtures. Average skin thickness at midpoint was 6.2 mm for adults and 4 mm for children. Minimal post operative nursing care was required as the wound healed neatly by 1 week without hair loss and minimal surrounding numbness. No wound complications reported. Four (5%) reported pain after a month but settled conservatively. Two (2.6%) reported surrounding oedema after prolonged continuous use. One reported skin tenderness. Majority loaded with processors at 6 weeks. Commonest magnet strength 4 (range 2 to 5). 89% reported good to excellent device retention. Majority were fitted with the BAHA 4 or BAHA 5 processors. Few had BP110. All patients reported good to very good sound quality with average use of 6hrs /day.

Conclusion: The interim experience with the transcutaneous BAHA Attract system is positive with negligible post operative care requirement.

doi:10.1017/S0022215116004308

Bone conduction hearing devices in single sided deafness (R834)

ID: 834.3

Which device - when and why? The controversial role of bone conduction hearing devices in the rehabilitation of unilateral sensorineural hearing loss