EXPERIENCE WITH THE BAHA ATTRACT© HEARING IMPLANT SYSTEM: A SINGLE INSTITUTION REVIEW

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Introduction

Bone anchored hearing aids (BAHA) have been in use since development by Tjellstrom in the 1970s. The traditional method of transmitting sound energy to the calvarium is by a percutaneous screw. Issues with skin overgrowth, surgical site infection, and need for frequent maintenance led to the development of transcutaneous transmission systems. The Cochlear BAHA Attract © was approved for use in December, 2013. We present the largest single institution experience to date with the transcutaneous BAHA Attract © system.

Methods

A single institution, IRB approved chart review of all patients who underwent BAHA implantation between December 2013 and December 2016 was performed. Demographics evaluated included age, sex, indication for implantation, surgical time, follow-up time, and patient comorbidities. Patient satisfaction, audiologic outcomes, and complications were also captured.

Patient Demographics	
Total numer of patients	36
Age in years (range)	36.63 (5.98-83.59)
Pediatric patients (<18 years)	15
Adult patients (>18 years)	21
Surgeries performed	37
Implants placed	38
Follow-up in days (range)	271.8 (71-284)

Results

36 patients were included, 15 pediatric patients, 21 adult patients. Average age at implantation was 36.72 years (range 5.98 - 83.59). 37 surgeries were performed, with 38 transcutaneous implants placed. One patient had two implants placed during one procedure, one patient had two implants placed in separate procedures. Five were conversion from percutaneous to transcutaneous. Follow-up time averaged 271.8 days (range 71-824 days). The most frequent surgical site issue postoperatively was redness overlying the magnet implant (8/38 implants), which resolved in all patients with adjustment of magnet strength. Intermittent pain (3/38) was uncommon.

Use and Complications	
Patients using on a regular basis	32/36
Pain at site	3/38
Numbness	2/38
Redness	5/38

Use of the device was regular in 32/36 patients use their device on a regular basis. One patient has had issues with feedback using a high-powered device. Audiologic measurements measured postoperatively were comparable to the preoperative evaluation with the BAHA softband device.

Discussion

The transcutaneous BAHA has allowed for patients who were previously unable or unwilling to use the transcutaneous device to have hearing rehabilitation. Complications in our experience are thankfully rare and easily treated. Postoperative issues with skin overlying the transcutaneous magnet implant are uncommon, and frequently addressed by adjusting magnet strength.

Conclusions

Our experience with the BAHA Attract© shows that the device is successfully used in the both pediatric and adult patients who are candidates for this device. Patient satisfaction and use of the device is high.

References

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