CE7.1

Bone-Anchored Hearing Aid

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Background: Bone anchored hearing aid implants were introduced in the Philippines in 2008 as an alternative hearing solution for conductive hearing losses and single-sided deafness. Around 3.6% of referrals to the university hearing center were patients with congenital aural atresia. As several innovations were continuously being introduced by leading BAHA centers in the world, these were consecutively applied to patients undergoing BAHA surgery with results presented.

Methods: Records of patients who underwent bone anchored hearing aid implantation were retrieved from 2008 to 2014. Data on age, gender, clinical diagnosis, unaided and aided audiometry, type of incision, skin reactions, revision surgery and other complications were determined.

Results: There were 10 patients who underwent BAHA implant surgery from 2008 to 2014. Mean age was 15 $\pm$ 5, ranging from 8 to 26, with 5 males and 5 females. Most had bilateral congenital aural atresia (CAA) (n=7), and 1 each with unilateral CAA, single sided deafness (SSD) and chronic otitis media. Majority of the patients had single stage BAHA surgery, with 1 undergoing 2-stage BAHA surgery. Most of the patients (n=8) were subsidized in the procurement of the BAHA implant and cost of surgery. The first 4 patients underwent standard circular incision, while for patients who had surgery in 2011 onwards, the Nijmegen linear incision

was used. Incisions were healed from 2-4 weeks. All patients had significant improvement in free field aided thresholds after loading of the speech processor (Divino = 4, BP100 = 6), falling within the speech spectrum. Two patients had revision surgery, one in a known keloid-former patient after 1 year, while another, with an increased body mass index, who had overlying superficial soft tissue on the abutment. One patient had a malfunction of the BAHA Divino speech processor.

Conclusion: BAHA implant surgery is one of the available hearing solutions considered for patients with congenital aural atresia and single-sided deafness, even in a developing country with limited resources.