

Comparing Post-Operative Complications Associated with Bone-Anchored Hearing Aid (Baha®) Connect and Attract Implantation in Pediatric Patients

Jordan Coburn, BS; Obinna Diala, MBBS, MPH; Suhong Tong, MS; Stephen Newton, MD

ABSTRACT:

Objective: To evaluate and compare post-operative complication rates and parental satisfaction associated with bone-anchored hearing aid (Baha®) Connect and Attract device implantation.

Methods: A retrospective chart review was performed among patients who had a Baha® Connect or Attract implant between 2001 through 2020 at a tertiary standalone children's hospital.

Results: 115 subjects who underwent Baha® implantation were identified, 70 with Attract and 45 with Connect devices. The mean (SD) age at implant for Connect and Attract devices was 8.9 (4.4) and 8.7 (3.7) years respectively. Connect patients were significantly more likely to experience complications than Attract patients (91.1% compared to 50.0%), $p < .001$, as well as more severe complications. Connect patients were also significantly more likely to undergo revision surgery (57.8% compared to 12.9%), $p < .001$. The most common complications for Connect were infection and device failure. The most common complications for Attract were device failure and pain/headaches. 61 parents underwent scripted survey, 31 for Connect and 30 for Attract. 73% of parents across both groups reported being satisfied. The rate of reported improvement in hearing loss and speech and language was higher in the Connect group, $p < .05$. Parental satisfaction rates and willingness to recommend surgery to others was not significantly different between groups.

Conclusion: Recipients of Baha® Attract device implantation experience a much lower rate of complications and revision surgeries than Baha® Connect. However, Connect patients experience greater improvement in hearing, speech, and language outcomes. These differences did not translate into an obvious difference in reported parent satisfaction between groups.