|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | Sound Awareness (PTA/SAT/ABR)  (dB HL) (Average) | | | Aided Condition (CI/ABI)  Ears (Percent) able to achieve/average score | | |
| Author | Patients (n) | Affected Ears (n) | Device | Nonusers n (%) | Unaided | Aided (HA) | Aided (CI) | Closed Set Speech Recognition | Open Set Speech Recognition | Average CAP/IT-MAIS (Range) |
| Birman et al., 2016 | 50, (11 unilateral) | 59 | CI | Not reported | Not reported | Not reported | Not reported | NA | 73% some spoken language | CAP Range 0-7  -Aplasia 47%  -Hypoplasia 89% |
| Bradley et al., 2008 | 6 | 6 | CI | 1 (17) | Not reported | Not reported | 37 | 83% | 17% | CAP 2.3 (2-4) |
| Buchman et al., 2011 | 22 | 21 | CI | 4 (18) | 99 | 71 | 49 | NA | 19% | NA |
| Chao et al., 2016 | 10 | 10 | CI | Not reported | NR | 81 | 44 | NA | NA | CAP 70% 4+ |
| Colletti, L *et al* 2013 | 21 | 21 | CI to ABI | Not reported | Not reported | Not reported | Not reported | NA | NA | CAP 4.3 (2-7) |
| Colletti, L et al., 2014 | 20 ABI, 20 CI | 40 | CI/ABI | Not reported | Not reported | Not reported | Not reported | NA | 31% @ 3yrs ABI | CAP .7 CI, 2.4 @ 2yrs ABI |
| Govaerts 2003 | 4 | 4 | CI | 2 (50) | NR | Not reported | 50% NR  50% 40-60 | 25% | 25% | NA |
| Kang 2010 | 6 | 6 | CI | 1 (17) | 50% NR  50% 99 | Not reported | Not reported | 17% | NA | CAP 3.9 (2-5) |
| Kutz 2011 | 9 | 10 | CI | Not reported | 17% NR  83% 55 | Not reported | 36 | 11% | 0 | NA |
| Morita et al., 2004 | 20 | 20 | CI | Not reported | Profound | Not reported | Not reported | NA | NA | IT-MAIS 22.3 @ 1yr |
| Vincenti et al., 2014 | 5 | 5 | CI | -0- | 102 | 88.3 | 45.2 | NA | 20 | NA |
| Wu et al., 2014 | 15 | 15 | CI | Not reported | Not reported | Not reported | Not reported | NA | NA | CAP 4.3 (0-6) |
| Young 2012 | 10 | 10 | CI | 2 (20) | 91 | 50% auditory sensation | 10% NR  90% 32 | 10% | 30% | NA |
| Zhang 2012 | 9 | 9 | CI | Not reported | >100 | 89% >85  11% 74 | 56% NR  44% 60 | NA | NA | CAP 2.3 (1-5) |
| **Our Series** | **25/2 unilateral** | **52** | **CI** | **-0-** | **86 (n=2)** | **50.5** | **Not reported** | **12%** | **8%** | **NA** |

**Table 4.** Review of outcomes across several centers examining language outcomes in children with abnormal CVNs. CI- cochlear implant. ABI- auditory brainstem implant. HA- hearing aid. CAP- Categories of Auditory Performance scale CND - cochlear nerve deficiency, NR - no response, IT-MAIS Infant-Toddler Meaningful Auditory Integration Scale