

인공와우 이식 아동의 청각재활 사례

한림대학교 성심병원 난청클리닉

박 성 혜 · 이 동 진

ABSTRACT

Aural Rehabilitation of Children with Cochlear Implants

Sung -Hye Park and Dong -Jin Lee

Hearing Center, Department of Otolaryngology, Sacred -Heart Hospital, Hallym University, Anyang, Korea

Congenitally deaf children who receive cochlear implants at a young age have the potential to achieve nearly normal language development. As the developmental effects of a profound hearing loss are multiple, cochlear implants have been applied to ever younger children in an attempt to promote a more normal level of developmental learning through audition. However, rehabilitation therapists must realize that intensive and long-duration auditory-verbal education is required postoperatively to achieve this goal. Two children with auditory rehabilitation for about 5 months after the operation were evaluated to examine how auditory perception would improve. Both cases showed benefits of aural rehabilitation. After the cochlea implant surgical operation, aural rehabilitation is required and education for natural language development should be run parallel accordingly.

KEY WORDS : Cochlear implant · Aural rehabilitation · Auditory training.

INTRODUCTION

METHODS AND RESULTS

사 례 1 :

: (2 10 ,)

: 2001 2 19

가 : 2003 12 16

: 2004 2 ~2004 6

3.6 kg.

13 가

. 2002 12

, 2003 2

2003 4 가

(ABR)

, 2003 5

(starkey)

가

. 가

가

가

: 2005 11 28

: 2005 12 5

교신저자 : 박성혜, 431 - 791

896

: (031) 380 - 3792 · : (031) 380 - 3794

E - mail : iamlearning@hanmail.net

Table 4. 재활목표

1.	/k, f, s, sh/		
1.		가	가
2.			
1.			colsed set
1.		2.	AO
3.	()	4.	

가 , (11 8)
 6 가 ,
 , AO
 , AV
 .
 2004 4 14
 , 5 20 1 5
 .
 AO
 가 가
 . (Table 4)
 80%
 가 3 가
 가 가
 , ,
 .
 2
 ling 6 test Table 6, 7
 , 4 : AO 0%, AV
 90% , 10 AO 90%,
 AV 96% ,
 (K - CID) , 4 AO 2%, AV 14%
 , 10 AO 32%, AV
 40% . GASPI - K auditory de-
 tection of phonemes 100% 15% , auditory
 identification of words 100% 34% , Auditory
 comprehension of sentences 100%(AO), 100%(AV)
 90%, 10%
 , 가 5~5 5
 4 ,

Table 5. 음장 이득검사 역치

	0.5 kHz	1 kHz	2 kHz	4 kHz	SAT	Control
Rt (dB HL)	35	35	40	40	35	CI vol.9, P1
Lt (dB HL)	85	85	NR	NR		HA

Table 6. 음장 이득 검사

	0.5 kHz	1 kHz	2 kHz	4 kHz	WRS at 50 dB HL	Control
Rt (dB HL)	55	55	80	80	20%	HA
Lt (dB HL)	30	35	30	35	90%	CI

, 4 44%,
 70% , 10 41%,
 90%
 , 가 , 가
 AO , AV
 5
 2~3
 가

DISCUSSIONS AND CONCLUSIONS

1 2
 , 가 1 13
 , 2 5 가 .
 1, 2
 . 2
 가

1-3) 1 가

2 AO , AV
40~90%

(1) 10
(2)

CI
2 1 5
3
가 가 , 30~
가

40 dB
90% 가
(2) (11 8)
6 가 ,
AO ,
AV ,
1 5

REFERENCES

1. Beadle EA, Mckinley DJ, Nikolopoulos TP, Brough J, O'Donoghue GM, Archbold SM. Long-term functional outcomes and academic-occupational status in implanted children after 10 to 1 years of cochlear implant use, *Otol Neurotol*. 2005;26(6):1152-1160.
2. Berliner KI, Eisenberg LS. Methods and issues in the cochlear implantation of children: an overview, *Ear Hear*. 1985;Suppl 6(3):6-13.
3. Bertram B, Pad D. Importance of auditory-verbal education and parents' participation after cochlear implantation of very young children, *Ann Otol Rhinol Laryngol*. 1995;Suppl 166:97-100.
4. Fu QJ, Nogaki G, Galvin JJ. Auditory training with spectrally shifted speech: implications for cochlear implant patient auditory rehabilitation, *J Assoc Res Otolaryngol*. 2005;6(2):180-189.
5. Perier O, Michiels J, Renglet T. Rehabilitation programs for patients with cochlear implants as a function of acquired experience in logopedics for deaf children, *Acta Otorhinolaryngol*. 1985;39(4):684-690.