

Fig. 1. Pediatric cochlear implant program.

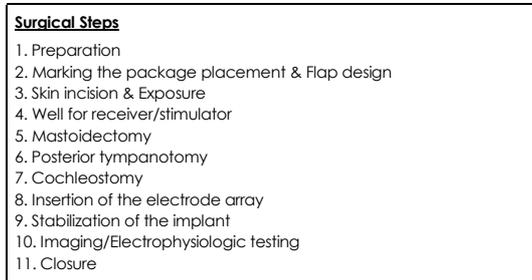


Fig. 2. Surgical steps.

template
 가
 (closed mastoidectomy)
 (posterior tympanotomy)
 (facial recess) (round window)
 (cochleostomy)
 (scala tympani)
 가
 (Fig. 2).
 C - arm
 , Impedence
 test, ESRT(Electrical stapedial reflex test), NRT,
 EABR

특수 상황에서의 인공와우이식

가 ,
 ,
 가 ,
 가

가 .⁴⁾ Mondini ,
 ,
 가
 5-7)
 가 EABR
 가 (2 mm)
 가
 가 ,
 PST EABR
 .¹⁾²⁾⁷⁾

(modi-
 ulus hugging electrode)
 interscalar sep-
 tum
 가 (straight
 electrode)

가

5)8)

(Aberrant facial nerve)

(Labyrinthine ossification)

(cochleariform process) (promontory) cochleostomy nerve monitoring (CSF gusher) Mondini 가 8) 9) leakage가 cochleostomy mannitol spinal drainage가 spinal drainage

cochl- 8) facial scala tympani 가 CSF가 scala tympani 가 10) 가 가 cochleostomy 8~10 mm drilling 10 mm tympani scala vestibuli multiple cochleostomy split electrode array HRCT HRCT , MRI T2 가 가 가

합병증

(Table 1).

(Facial nerve stimulation)

가, 12)

Table 1. Cochlear corporation complications data through march 1998 Nucleus 22 device cumulative data (from Roland JT, 2000¹¹⁾)

	Adults	Children
	(n=5,170)	(n=4,051)
	No (%)	No (%)
Flap necrosis	29 (0.56)	11 (0.26)
Skin flap infection	56 (1.08)	29 (0.72)
Skin flap too thick	55 (1.06)	17 (0.42)
Skin irritations due to externals	26 (0.50)	11 (0.27)
Healing problems	108 (2.09)	33 (0.81)
Facial nerve compromise	22 (0.43)	16 (0.39)
Facial nerve stimulation	162 (3.13)	47 (1.16)
Meningitis post op	2 (0.04)	5 (0.12)
Migration of receiver/stimulator	13 (0.25)	9 (0.22)
Migration of electrode array	67 (1.30)	49 (1.21)
Extrusion of receiver/stimulator	76 (1.47)	15 (0.37)
Electrode lead extrusion	9 (0.17)	9 (0.22)
Compressed electrode array	30 (0.58)	7 (0.17)
Electrode array damage	20 (0.39)	86 (2.12)
Incorrect electrode placement	32 (0.62)	24 (0.59)
Persistent non-auditory pain	108 (2.09)	33 (0.81)
Tinnitus post operatively	31 (0.60)	2 (0.05)
Dizziness post op	41 (0.79)	7 (0.08)
Perilymph fistula	6 (0.12)	10 (0.25)

tation)

rehabilitation

15)16)

술전 재활

가

가

가,

가

가

가

가

signal

MRI

가

CI24M

MRI

가

재 활

가

15)17)

가

13)14)

(habilitation)

(habili-

가

가

T/C - level , MAP ¹³⁾¹⁶⁾ , 가

level tolerance가 C - 3~6 가 가

(Discomfort Level)

MAP 가 1 가

(Aided PTA)

Ling 's 6 sound, ¹⁵⁾ 가 team app-

가 roach가

¹⁹⁾ 1 가

MAP 6 가

가 가 MAP 가

가 가 ¹⁹⁾ 가

가 가 ²⁷⁾²⁸⁾ 가

가

: (II)

16)29)

PPVT - R(Peabody Picture Vocabulary Test - Revised), PRES(Preschool Receptive - Expressive Language Scale), TOLD - P(Test of Language Development - Primary)

15~16

4~5

, 가 , ,

32)

가

가

2~3

가

30)31)

15)18)29)

MAIS - IT(Meaningful Auditory Integration Scale - Infant& Toddler) (scale)

가

6 ~1

가

가

15)33)

(prelinguistic stage)

가

가

가

가 19)34)35)

가

가

술 후 결과

Ling 6 sound

(closed - set test)

가

(open - set test)가

가

가

36) - 41)

15)29)

가

6

80%

3~6

가

가 가

가

가

90%

30)31)

가

가

(phonology),

(morphology),

(syntatics),

가

가

(gramatics)

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