

소아에서 내시경을 이용한 아데노이드 절제술과 고식적 아데노이드 절제술의 비교

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A Comparative Study between Endoscopic Adenoidectomy and Conventional Adenoidectomy in Children

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—ABSTRACT—

Background and Objectives : Adenoidectomy with or without other surgical procedures such as tonsillectomy or tympanostomy tube insertion is a commonly performed treatment for adenoid hypertrophy. Recently, adenoid has been removed under endoscopy which was widely used in otolaryngological field. The aim of this study is to compare conventional transoral adenoidectomy with transnasal endoscopic adenoidectomy and to evaluate the effectiveness and surgical outcomes of transnasal endoscopic adenoidectomy. **Materials and Methods** : Twenty patients of conventional adenoidectomy using adenoid curette and twenty patients of endoscopic adenoidectomy were compared. We compared the volume of intraoperative bleeding, the operation time, skull lateral radiographs and endoscopic photographs between to groups. **Results** : Endoscopic adenoidectomy group shows more intraoperative bleeding and intraoperative time than conventional adenoidectomy group. But, adenoid tissue could be removed more completely in endoscopic adenoidectomy group. Even though there were no statistical difference, the endoscopic adenoidectomy group showed slightly the more change of adenoid-nasopharynx ratio and endoscopic grade than conventional adenoidectomy group. Also there were no differences statistically with regard to complication rate. **Conclusion** : As compared to the conventional adenoidectomy, the endoscopic adenoidectomy has similar postoperative results but it can remove more adenoid tissue under direct visualization without damage to other structures. This technique may be particularly useful for revision cases or superiorly positioned adenoids projecting into the choana and around eustachian tube. (J Clinical Otolaryngol 2002;13:105-110)

KEY WORDS : Endoscopy · Adenoidectomy.

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서 론

20
2.7 mm
가 가
40 24 , 16
5 12
1)

방 법

가
2)
가 , grade
grade

CO2

3)
가 400cc
(skull lateral ra-
diograph) 1
가 4

Grading

가 3)
(microdebrider)
4-7)
grading⁸⁾ X -
(Adenoid - nasopharynx ratio)
Fujioka's grading⁹⁾
(Clemens grading)
0 30
Clemens grade -

대상 및 방법

대 상

1997 3 1998 2
1/3 grade ,
2/3 grade , 2/3
가 grade ,
grade (Fig. 1).
grade 1 , , 2, 3, 4
20 X - (Skull lateral radiograph)
Fujiokaga

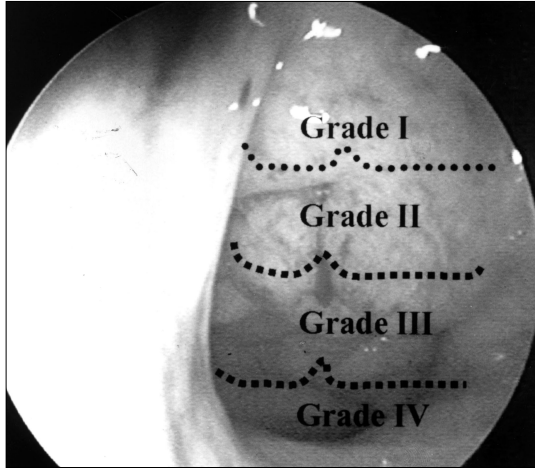


Fig. 1. Clemens's adenoid grading scale by nasopharyngoscopy.

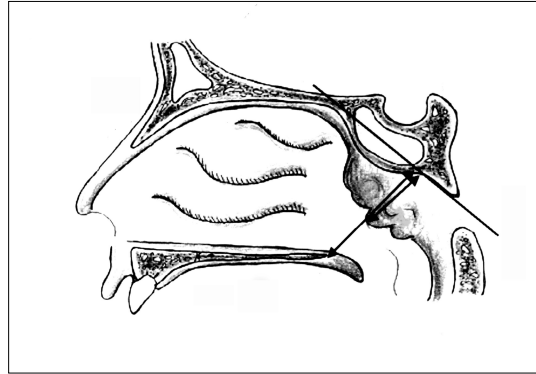


Fig. 2. Fujioka's adenoid grading scale by radiograph. A : adenoid, N : nasopharynx, A/N : the adenoid-nasopharynx ratio.

(A)
(sphenobasioccipital syn-
chondrosis)
(N)
(adenoid - nasopharynx ratio ; A/N ratio)
(Fig. 2).

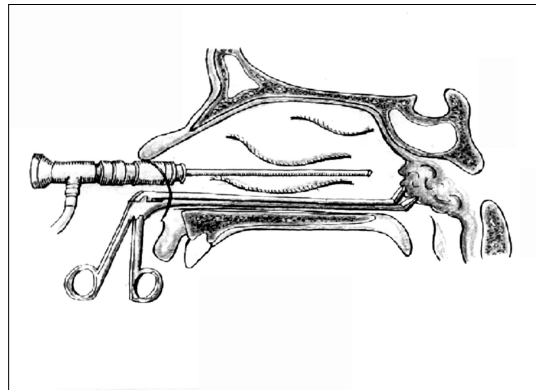


Fig. 3. Sinus telescope and Blakesly forceps pass transnasally to approach the adenoid.

(Rose position)
1 : 50,000 10
, 2.7 mm 4 mm
0° 30° Blakesly
forceps 가 grade+++
Blakesly forceps
suction cautery

(Fig. 3).

100

ml 30 ml

Student *t* - test

결 과

가 7.1 ± 1.2 , 가 31.5 ± 8.7 가 26.5 ± 4.3 가 47.8 ± 6.2 ml (p<0.05), 가 4.2 ± 1.0 ml, 가 6.1 ± 0.5 ml (p<0.05). X- 0.8 ± 0.15, 0.62 ± 0.2 , 0.83 ± 0.1, 0.51 ± 0.1 0.18, 0.32 3.1 ± 0.5, 1.9 ± 0.3 , 3.7 ± 0.3, 1.1 ± 0.2

Table 1. Comparison of conventional versus endoscopic adenoidectomy

	Conventional adenoidectomy	Endoscopic adenoidectomy
Op time (min)*	7.1 ± 1.2	31.5 ± 8.7
Blood loss (ml)*	26.5 ± 4.3	47.8 ± 6.2
Adenoid vol (ml)*	4.2 ± 1.0	6.1 ± 0.5
Pre op A/N ratio	0.8 ± 0.15	0.83 ± 0.1
Post op A/N ratio	0.62 ± 0.2	0.51 ± 0.1
Change of A/N ratio	0.18	0.32
Pre op endoscopic grade	3.1 ± 0.5	3.7 ± 0.3
Post op endoscopic grade	1.9 ± 0.3	1.1 ± 0.2
Change of endoscopic grade	1.2	2.6

A/N ratio : adenoid-nasopharynx ratio, op : operative, vol : volume, * : There was statistically significant difference between conventional and endoscopic adenoidectomy

1.2,

2.6

(Table 1).

가 (Fig. 4), (Fig. 5).

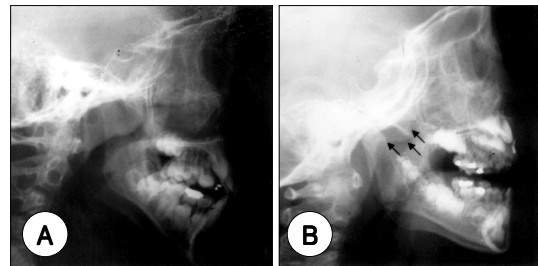


Fig. 4. Comparison of preoperative (A) and postoperative (B) radiographic result of conventional adenoidectomy. Arrows indicate the adenoid remnants after conventional adenoidectomy.

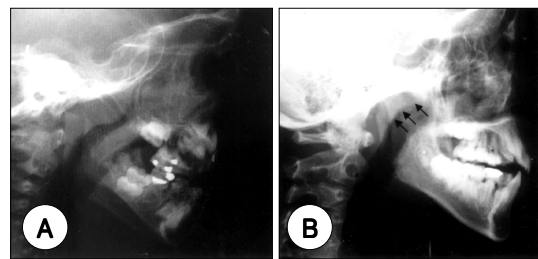


Fig. 5. Comparison of preoperative (A) and postoperative (B) radiographic result of endoscopic adenoidectomy. Arrows indicate the posterior pharyngeal wall after endoscopic adenoidectomy.

Table 2. Comparison of conventional versus endoscopic adenoidectomy for post operative complication

	Conventional adenoidectomy	Endoscopic adenoidectomy
Primary bleeding	1	1
Delayed bleeding	1	0
Tooth fracture	1	0

:

가 ,

(Table 2).

고 찰

⁷⁾¹³⁾

가 ,

가

1

가

가 .

2.7 mm 4 mm 0°

30°

3.5 mm

가

가

가

Wormald ¹⁰⁾

60%

가

⁷⁾

90 Blakesly forcep

, Wang ¹¹⁾

가

가

가

가

가

(electric adenotome)

Kim¹⁴⁾

¹²⁾

⁷⁾¹³⁾

가

가

가 가

가

편 편

1/3

중심 단어 :

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