

편도 및 아데노이드 절제술 후 출혈에 관한 임상적 고찰

박찬흠 · 김덕영 · 주형로 · 전진형 · 정기남 · 홍성주

Clinical Analysis of Hemorrhage after Tonsillectomy and Adenotonsillectomy

Chan Hum Park, MD, Duk Young Kim, MD, Hyung Ro Chu, MD,
Jin Hyoung Chun, MD, Ki Nam Jung, MD and Sung Ju Hong, MDDepartment of Otorhinolaryngology-Head & Neck Surgery, College of Medicine, Hallym University,
Chuncheon, Korea

-ABSTRACT-

Background and Objectives : Hemorrhages is one of the complications after tonsillectomy and adenoidectomy. Despite continuous efforts to eliminate this problem, it still remains unsolved problem. **Materials and Methods** : A retrospective study on all patients who has undergone tonsillectomy or tonsillectomy and adenoidectomy in Chuncheon Sacred Heart Hospital during 9 years from January 1995 to January 2004. Post-operative hemorrhage relation to sex and age distribution, the type of hemorrhages, operator, operative indication, the treatment methods, the site of hemorrhage, the cause of hemorrhage, the period of onset of post-operative hemorrhage was analyzed. **Results** : The overall hemorrhage rate was 3.2%. Postoperative hemorrhages proved to be most common in adult male patients and when operative indication was frequent and chronic infection. **Conclusion** : To prevent post-operative hemorrhage, meticulous bleeding control during operation and perioperative education is most important. (J Clinical Otolaryngol 2005;16:73-78)

KEY WORDS : Hemorrhage · Tonsillectomy · Adenoidectomy.

서 론

2-4)

2~4%

1)

: 2005 4 8

: 2005 5 10

: , 200 - 704 153

방 법

: (033) 252 - 9970 · : (033) 241 - 2909

E - mail : hlpch@lycos.co.kr

1995 1 1 , 2004 1 1 9

Microdebrider RADenoid™(XOMED®, USA)

2,634

2, 3

결 과

출혈의 성별 및 연령분포

2,634 85 3.2%
 1,122 27 (2.4%) 58 (3.8%),
 가 16 (6.5%)
 15 (2.0%)
 가 (p<0.05). 16
 (10.1%) (p<0.05)(Table 1).

Chi - Square test

술 후 출혈의 종류

85 24
 7 (8.2%) 24
 78 (91.8%)
 가 (p>0.05)(Table
 6.5%
 가 (p<0.05)
 2.3% 가 6
 (Table 3). 2
 7.1% . 9 906
 6 0.7%

, Nd - YAG laser
 (microdebrider)

Table 1. Number of post-operative hemorrhages related to age and sex of the patients

Age	Male (%)	Female (%)	Total (%)
≤15	20/1135 (1.8)	18/778 (2.3)	38/1913 (2.0)
≥16	38/377 (10.1)*	9/344 (2.7)	47/721 (6.5)*
Total	58/1512 (3.8)	27/1122 (2.4)	85/2634 (3.2)

*p<0.05

Table 2. Type of hemorrhages

	Male (%)	Female (%)	Total (%)
Primary hemorrhage	3 (3.5)	4 (4.7)	7 (8.2)
Secondary hemorrhage	55 (64.7)	23 (27.1)	78 (91.8)
Total	58 (68.2)	27 (31.8)	85 (100.0)

Table 3. Secondary hemorrhages related to age and sex

Age group	Male (%)	Female (%)	Total (%)
≤15	27/1214 (2.2)	18/854 (2.1)	48/2068 (2.3)
≥16	29/298 (9.7)*	5/268 (1.9)	37/566 (6.5)*
Total	56/1512 (3.7)	23/1122 (2.0)	78/2634 (3.0)

Table 4. Hemorrhages related to operator

Operator	Total (%)
Otolaryngologist	58/2108 (2.8)
Resident	27/526 (5.1)*
Total	85/2634 (3.2)

*p<0.05

Table 5. Hemorrhages with respect to operative indication

Indication	Total (%)
Hypertrophy	23/1054 (2.2)
Infection	62/1580 (3.9)*
Total	85/2634 (3.2)

*p<0.05

집도의별 빈도

가 2,108 58 (2.8%),
526 27 (5.1%) 가
가 (p<0.05)(Table 4).

수술 적응증에 따른 출혈의 발생

85 , 가 1,054
23 (2.2%) ,
1,580 62 (3.9%)
가 (p<0.05)(Table 5).

수술 방법에 따른 출혈의 발생

780
24 (3.1%) ,
1,240 41 (3.3%) Nd - YAG
laser 614 20 (3.3%)
701 4 (0.6%)
(Debrider) 205 2
(1.0%)
(p>0.05).

술 후 출혈의 지혈방법

가 39 가

Table 6. Treatment of hemorrhage

Treatment	Total (%)
Observation	39 (45.9)
Simple method	18 (21.2)
Operation	28 (32.9)
Total	85 (100.0)

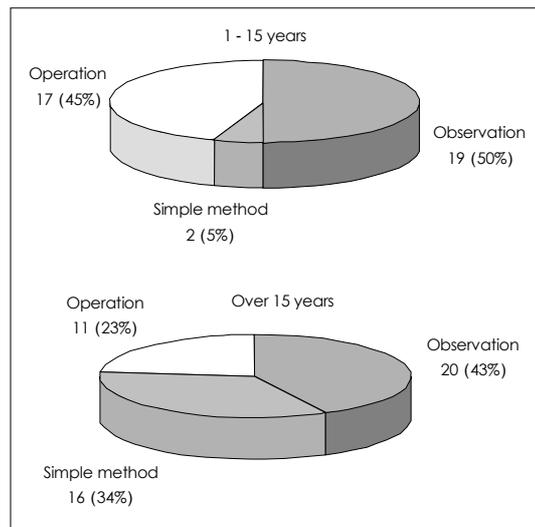


Fig. 1. Treatment of hemorrhage (%) in different age group.

가 18 ,
가 28 18 가
(Table 6). 15
가 38 17 (45%)
16 , 16
47 11
2
(Fig. 1), 가
가 6

출혈 부위

25 , 13 ,

Table 7. Sites of hemorrhages

Location	Total (%)
Left lower tonsillar fossa	25 (28.8)
Left upper tonsillar fossa	13 (14.9)
Right lower tonsillar fossa	22 (25.3)
Right upper tonsillar fossa	15 (17.2)
Adenoid	6 (6.9)
Unknown	6 (6.9)
Total	87 (100.0)

Table 8. Hemorrhage within the week after operation

Week	Total (%)
1	49 (57.6)
2	34 (40.0)
3	2 (2.4)
Total	85 (100.0)

Table 9. Cause of secondary hemorrhages

Day	Total(%)
During sleep	13 (6.19%)
Diet	12
Cough	3
Unknown	50
Total	78 (100.0)

22 , 15 , 6 Lee ¹¹⁾ 1,510
 6 (Table 7). 가 2 가 Weimert ¹²⁾ 2,431
 가 2 . 1.9%

출혈 시기

7.4 , 57.6%가
 1 , 97.6%가 2
 (Table 8).

출혈 원인

가 12 , 가 3 , 가 , 5~7
 가 13 , 가 , 3.0% Kris-
 가 50 (Table 9). tensen ³⁾ 2.9% Lee ¹¹⁾ 3.4%
 . 15 가 , ,

고 찰

가 , 가
 , , , 가
 , 가
 (coblation)
 Belloso 1,587 2.25%
 6)
 7-9)
 가 0.5~10%
¹⁰⁾ 3.2%
 Lee ¹¹⁾ 1,510 3.9%
 Weimert ¹²⁾ 2,431 1.9%
 24
¹³⁾
 , 가
 0.3%
 5~7
 가 12 , 가 3 , 가 , 3.0% Kris-
 가 13 , 가 , 3.0% Kris-
 가 50 (Table 9). tensen ³⁾ 2.9% Lee ¹¹⁾ 3.4%
 . 15 가 , ,

J Clinical Otolaryngol 2005;16: 73-78

- Study on Pros and Cons of Electrodissection Tonsillectomy. Laryngoscope 2001;111:478-82.*
- 16) Chu YS, Chang CN, Lee IM, Chung DH, Kim CG. *Statistical study of post-tonsillectomy bleeding. Korean J Otolaryngol 1977;20:361-6.*
- 17) Shea SA, Edwards JK, White DP. *Effect of wake-sleep transition and rapid eye movement sleep on pharyngeal muscle response to negative pressure in human. J Physiol 1999;520:897-908.*