권지숙, 유승수, 강예림, 이정우, 김은진, 차승익, 박재용, 정태훈, 김창호

The Effect of Corticosteroid in Conservative Treatment of Patients with Hemoptysis

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Background: This study examined the effect of corticosteroids as a short-term treatment for patients with hemoptysis that requires conservative treatment including bed rest, antitussives and antibiotics.

Methods: From February 2005 to August 2006, 78 consecutive patients who visited the emergency room because of hemoptysis were enrolled in the study. Patients with hemoptysis due to lung cancer, active pulmonary tuberculosis, and pneumonia were excluded. The 78 patients were divided randomly into a corticosteroid medication group (n=37) and a control group (n=41). The mean control time of hemoptysis, mean in-hospital days, and complications of treatment were investigated prospectively.

Results: For the etiology of hemoptysis, inactive pulmonary tuberculosis alone or its associated complications (bronchiectasis and/or aspergilloma) were the most common causes (51%); bronchiectasis alone and bronchitis were the next most common causative diseases (15%, respectively). The patients' characteristics and symptoms in the corticosteroid medication and control groups were similar. The steroid medication group showed a significantly lower mean control time of hemoptysis than the control group (4.0 ± 2.7 days, 6.1 ± 4.8 days, respectively) ($p=0.022$) and had a lower mean number of in-hospital days (5.8 ± 3.4 days, 7.9 ± 4.8 days, respectively) ($p=0.036$). There were no significant complications, such as hospital-acquired pneumonia or gastrointestinal bleeding, related to the use of corticosteroids.

Conclusion: The use of corticosteroids as a conservative treatment for hemoptysis due to bronchitis, bronchiectasis, inactive pulmonary tuberculosis and its related complications safely reduces the control time of hemoptysis as well as the number of in-hospital days. (*Tuberc Respir Dis* 2007;63:486-490)

Key Words: Conservative treatment, Corticosteroid, Hemoptysis

서 론

3
가
4.5
1,2
가
,
,
6
,
가
1,7
(corticosteroid)
가

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(100%).

8,9

가 10,11.

3. 통계 분석

SPSS 13.0

± (mean±SD)

(%)

chi-square

unpaired t-test

대상 및 방법

1. 대상

2005 2 2006 8

결 과

1. 대상군의 임상적 특성

78 (47)

1.5 : 1

54.5±13.7

(37)

(41)

가

2. 방법

(Table 1).

2. 객혈의 원인질환

3 levofloxacin
750 mg amikacin 1 g 1

가 40

(51.3%) 가

4 31.25 mg 12

2 3

15 (19.2%)

20 mg 1 7

10 mg 1

가 8

(Table 2).

(old blood)

(fresh blood) 5

가 . , 1.

(4.0±2.7

(0%), 2.

25%

, 6.1±4.8)(p=0.022),

(25%), 3.

50%

(50%), 4.

(5.8±3.4 , 7.9±4.8)(p=0.036).

75% (75%), 5.

Table 1. Characteristics of the patients

	Control group (n=41)	Steroid group (n=37)	p-value
Age	56.1±13.6	52.8±13.8	0.301
Sex			0.098
Male	28 (68.3)	19 (51.4)	
Female	13 (31.7)	18 (48.6)	
Smoking	23 (56.1)	17 (45.9)	0.252
Comorbidity	6 (14.6)	9 (24.3)	0.213
IHD*	2 (4.9)	2 (5.4)	
DM [†]	1 (2.4)	3 (8.1)	
LC [‡]	2 (4.9)	2 (5.4)	
Renal failure	1 (2.4)	2 (5.4)	
SAPS II [§]	22.3±5.7	21.1±4.4	0.298
ABGA			
pH	7.46±0.02	7.46±0.03	0.798
PaCO ₂ mmHg	38.3±5.0	37.4±3.6	0.393
PaO ₂ mmHg	85.7±19.8	88.5±14.6	0.500
HCO ₃ ⁻ mmol/L	27.5±2.6	27.2±2.1	0.613
Bleeding diasthesis			
Platelet 10 ³ /μl	280.4±103.9	251.2±79.1	0.171
PT sec.	12.1±1.2	11.9±1	0.492
PTT sec.	26.3±4.6	26.8±4.6	0.631
Volume of hemoptysis			0.200
<50 ml	20 (48.8)	12 (32.4)	
50~200 ml	13 (31.7)	19 (51.4)	
>200 ml	8 (19.5)	6 (16.2)	
BAE case	8 (19.5)	5 (13.5)	0.344

Values are mean±SD or frequency with percentage in parenthesis.

*Ischemic heart disease, [†]Diabetes mellitus, [‡]Liver cirrhosis,

[§] Simplified acute physiology score, ^{||} Bronchial artery embolization

Table 2. Cause of hemoptysis

	Control group (n=41)	Steroid group (n=37)	p-value
Inactive tuberculosis	23 (56.1)	17 (45.9)	0.370
Only	7 (17.1)	6 (16.2)	
+Bronchiectasis	12 (29.3)	7 (18.9)	
+Aspergilloma	1 (2.4)	1 (2.7)	
+Bronchiectasis+Aspergilloma	3 (7.3)	3 (8.1)	
Bronchiectasis	8 (19.5)	7 (18.9)	1.000
Bronchitis	8 (19.5)	7 (18.9)	1.000
Unknown	2 (4.9)	6 (16.2)	0.141

Values are mean±SD or frequency with percentage in parenthesis.

Table 3. Outcome of treatment

	Control group (n=41)	Steroid group (n=37)	p-value
Control of hemoptysis, days	6.1±4.8	4.0±2.7	0.022
Hospital stay, days	7.9±4.8	5.8±3.4	0.036
Recurrent hemoptysis	2 (4.9)	2 (5.7)	0.873
Nosocomial pneumonia	0 (0.0)	0 (0.0)	1.000
Surgical resection	0 (0.0)	1 (2.7)	0.295

Values are mean±SD or frequency with percentage in parenthesis.

(Table 3).

1

고 찰

3,12,13

56.1%,

45.9%

488

14

12

2/3

50%

1,7

2,12,15

70%

가

가

³. Wang ¹⁶
(plastic bronchitis)

가

가

가

가

3

가

(pleiotropy)
가 , ,

가

가

가

¹⁸

^{10,11}

2

⁹

요 약

가

연구배경:

가

방 법: 2005 2 2006 8

ofloxacin amikacin . levofloxacin lev-
kacin kacin ami-

가

가

(37)

(41)

¹⁹

가

²⁰

결 과:

가 가 가 (51%),
15% ,

(4.0±2.7 vs. 6.1±4.8)
(5.8±3.4 vs. 7.9±4.8)
(p=0.022, p=0.036).

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