

외상이 경추 후종인대 골화증 환자의 수술결과에 미치는 영향

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= Abstract =

Influence of Trauma on the Surgical Outcome in Patients with Ossification of the Posterior Longitudinal Ligament of the Cervical Spine

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Objectives : Most cases of cervical ossification of the posterior longitudinal ligament(OPLL) present with myelo - pathy or myeloradiculopathy, which sometimes is further complicated by minor trauma to the spinal cord. The main purpose of surgery in these patients is the alleviation symptoms but also as protection against further deterioration. The purpose of this study is to analyze the influence of trauma on the surgical outcome in patients with cervical OPLL.

Methods : Over the past 13 years, we have operated on 123 patients with myelopathy associated with cevical OPLL. Among these, thirty patients had cervical cord injury associated with major or minor trauma and their clinical and radiographic data were reviewed retroseptively.

Results : As to cause of trauma, seventeen were related with traffic accident and 13 were related with minor slipping injury. The pre - and post - operative motor power were significantly weaker in the patients with trauma, but the degree of motor improvement was significantly higher(trauma group : 0.90 ± 1.49 , non - trauma group : 0.41 ± 0.80).

Conclusion : These results indicate that even indirect minor trauma to the cervical spine can cause irreversible changes to the spinal cord if this is associated with underlying cervical stenosis with OPLL. Although less favorable results may be anticipated in patients with trauma, operative decompression could improve motor power and protect further deterioration.

KEY WORDS : Ossification of posterior longitudinal ligament · Minor trauma · Spinal cord injury.

Key 1838 가

1960 oto²⁷⁾ . 1964 Terayama

Guys Hospital Reports

14), 가

Tsukim - ossifi -

24) 가

24) 가

15) .

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cation of the posterior longitudinal ligament(OPLL)

가

대상 및 방법

1. 연구 대상

1983 1996
 123
 53 27 81 50
 가 47 38.2% 105
 18 5.8 : 1
 가 90%
 가 88%, 19%
 56%
 123
 30 (24.4%) 가
 가 17 (: 14
 : 3) 가
 가 (Fig. 1).

2. 연구 방법

Grade 0 Gra -
 de 5
 X - (spinal
 canal) (/)

3. 통계 방법

Paired T - test ANOVA test
 p<0.05

결 과

1. 수술 전 · 후 환자의 운동신경 마비 회복

가
 2.07 ± 1.76 , 3.76 ± 1.01
 ($p < 0.05$).

0.90 ± 1.49 , 0.41 ± 0.80
 ($p < 0.05$) (Fig. 2).

2. 척수강의 압박 정도와 수술 전 · 후 운동신경 마비의 회복

59.8 ± 14.92 ,
 가 ($p > 0.05$).

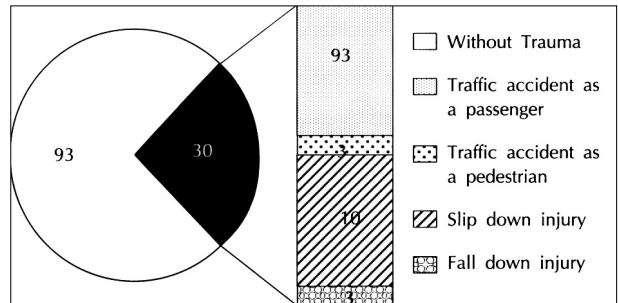


Fig. 1. The causes of accident in traumatic patients with cervical OPLL.

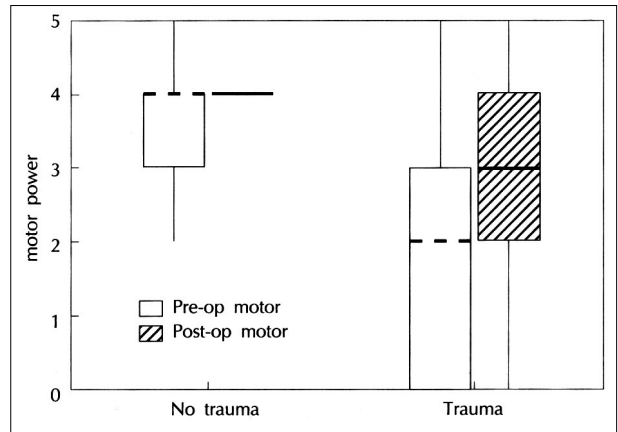


Fig. 2. Box plot demonstrating the pre-operative and post-operative motor grade who had suffered a trauma and those who had not. The pre-operative and post-operative motor grade are significantly lower in trauma group. But the degree of motor improvement is significantly higher in trauma group.

외상이 경추 후증인대 골화증 환자의 수술결과에 미치는 영향

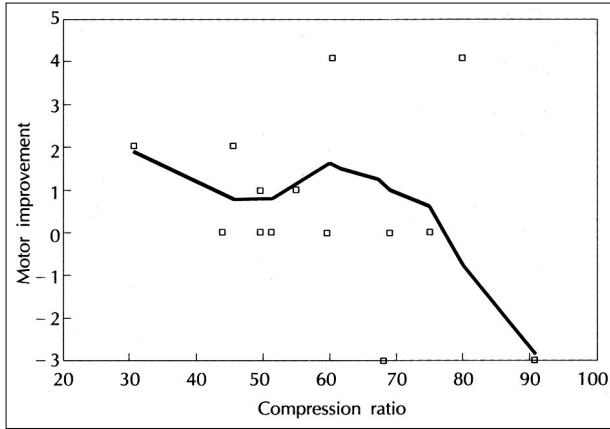


Fig. 3. Linegraphs demonstrating the motor improvement according to compression ratio in the patients who had suffered a trauma. The degree of motor improvement is correlated with compression ratio.

(Fig. 3).

고 찰

가 40% (21)25)

가 16.9%

가 28.5% (8)13)28)

가 123

가 30 (24.4%)

가 17 (: 14 , : 3) 56.7%

가 13 (43.3%)

long - track sign

가 (central cord syndrome)

가 (corticospinal tract)

가 (delyed surgery)

가 6)10)19)

가 50% 19)

가 2 4 가

가 11)20)23)

가 3

가 1)4)9)

가 2 1

가 4 가

hemilateral open door method¹¹⁾¹²⁾²⁶⁾ midline splitting bilateral open method¹⁷⁾

가 (Fig. 4).

midline splitting method

가

3)

가

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