

척수재활

발표일시 및 장소 : 10 월 26 일(금) 14:35-14:45 Room D(5F)

OP3-2-3

Current State of Infection of Inpatients with Spinal Cord Injury in Tertiary Rehabilitation Center

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Objective

Diseases of the respiratory system are the leading cause of death following spinal cord injury(SCI), with pneumonia being the most common. Septicemia is third cause of death, usually associated with pressure ulcers(PU), urinary tract infection(UTI) or respiratory tract infections. In cervical cord injury, pneumonia is by far the leading cause of death. But heart disease, septicemia, and suicide are more common in below cervical cord injury. Infection is not only the main cause of death, but also common limitation factor of rehabilitation. But domestic epidemiology of infection in SCI is rarely reported, especially in tertiary rehabilitation center.

Subjects & Methods

We conducted retrospective chart review of 161 patients with cervical or thoracic SCI who admitted or transferred from other departments to our rehabilitation center from January 2015 to September 2016. Based on the presence or absence of increased C-reactive protein(CRP) patients were divided into two groups : uninfected group(115 patients) and infected group(46 patients). Demographic characteristics, and clinical characteristics were analyzed to identify factors influencing the presence or absence of infection. And we investigated whether rehabilitation is restricted or not during infection period.

Results

There was no statistically significant differences between two groups in sex, age, level of injury, cause of injury, duration of morbidity etc. But, in infected group, proportion of severe SCI was more and length of stay in our center was longer than uninfected group.(Table 1.) In Infected group, there were 79 events of infection and 18 patients experienced infection, repeatedly. Recurrent infection is significantly more in cervical SCI.(figure 1) Initial increasing in CRP was 9.83 ± 6.29 mg/dL(mean \pm SD). and initial increasing in body temperature was 37.64 ± 0.75 °C. Average days when rehabilitation was

not carried out due to infection was 1.16 ± 2.99 days. UTI was most common followed by lower respiratory tract (pneumonia etc.). (Figure 2.)

Conclusion

In our pilot study, there was no case of death due to infection. Infection was more common in severe SCI and they stayed longer in our rehabilitation center. It seems that infection caused rehabilitation blank for about one or two days. And patients with cervical SCI have more risk of recurrent infection. To evaluate other association factors and influences related to infection, further study is needed.

Table 1. Demographic characteristics

	Uninfected group (115)	Infected group (46)
Sex (n)	M:74 F:41	M:34 F:12
Age (years)	57.04 ± 14.94	59.19 ± 14.44
BMI (Kg/m^2)	23.14 ± 4.12	22.45 ± 3.80
Height (meter)	1.64 ± 0.89	1.63 ± 0.89
Level of Injury	C:67 T:47	C:23 T:23
ASIA impairment scale	A:11 B:2 C:28 D:75	A:16 B:2 C:10 D:18*
Duration of morbidity (days)	705.51 ± 1790.66	1035.78 ± 2434.57
Length of stay in rehabilitation center (days)	53.21 ± 34.79	$81.06 \pm 65.02^*$
History of Trauma (n)	61	24

ASIA, American Spinal Injury Association; *, P-value < 0.05

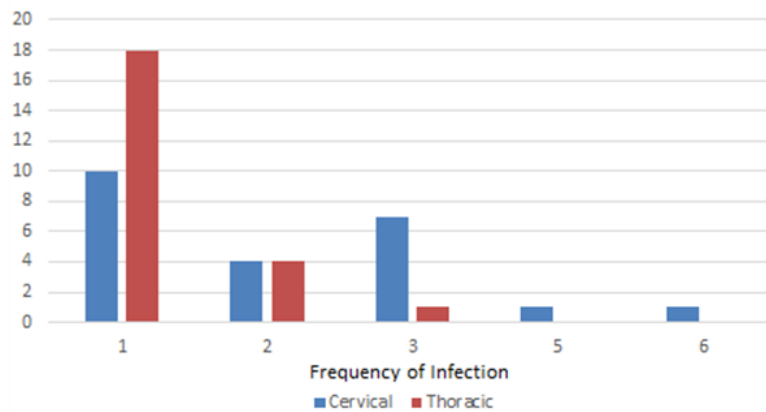


fig1. Distribution of patients with recurrent infection

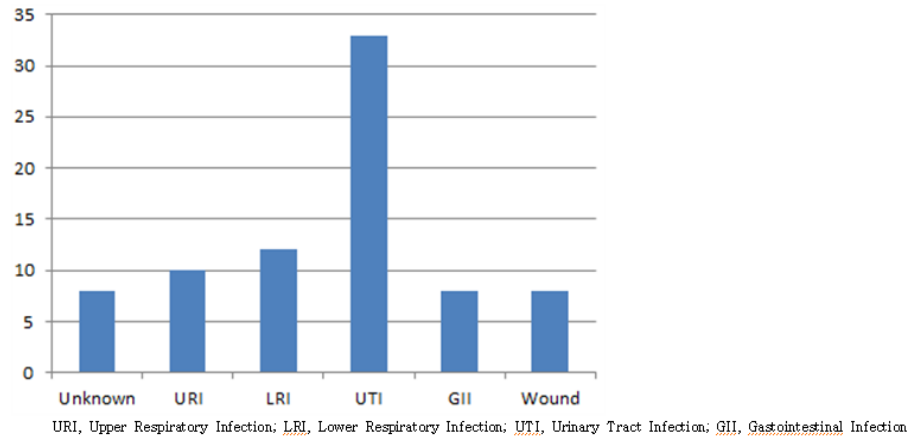


fig2. Distribution of patients according to infected system