

Characteristics of Patients with Infectious Spondylitis: 7-year Experience

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Introduction

Infectious spondylitis involves various location of the vertebrae and elicits many kinds of clinical features. Treatment takes a long time antibiotics and sometimes surgical debridement, if the treatment fails, the patient may be fatal. We analyzed our experiences for the patients with infectious spondylitis who had admitted our hospital using medical records and report it.

Methods

We investigated inpatients medical records to find patients with disease name of "infectious spondylitis" using KCD-10 code from M46.2 to M46.9 from 2011 to 2017. Among these patients, we confirm infectious spondylitis reviewing the medical records and radiologic images. Then, we looked into the information of departments, surgical debridement, location and extents of infections, suggested etiology and identified pathogens. We also investigated neurological features such as sensory change, motor weakness and recovery of neurological deficit. Statistical analyses were done using Microsoft EXCEL 2017.

Results

177 cases were found at the first review. Subducing overlapped cases, 127 patients were recruited. Some records gave us poor information about location and extent of the infection. Thus we excluded. Finally 106 patients were included, 60 males and 46 females. Mean age was 68.5-year old. (Table 1) The localized pain was the most frequent initial symptom. (72%) The average number of infected vertebral segments was 1.75. The most frequently involved sited was lumbosacral region. 36 patients took surgical debridements. (34%) The most suggested etiology was systemic infection, (62.6%) followed by procedure-related infections. (16.8%) Among procedure-related spondylitis, the most frequent cause was epidural steroid injections. (44.4%) In case of identification of the pathogen, Staphylococcus was the most frequent. (71.4%) (Table 2)

Conclusion

We reported 7-year experiences about infectious spondylitis. Further prospective study with analyses of cause and prognosis may be required.

Table 1. Demographics

	No (%)
Sex	
Male	60 (56.6%)
Female	46 (43.4%)
Total	106
Age (year-old)	68.54 (\pm 12.75)
Department of admission	
Infectious Disease	44 (41.1%)
Neurosurgery	30 (28%)
Orthopedics	23 (21.5%)
Rehabilitation Medicine	9 (8.4%)
Consultation for Rehabilitation	43 (40.6%)

Table 2. Characteristics of Infectious Spondylitis

	No (%)		No (%)
First symptoms		Suggested etiology of infection	
Localized pain	77 (72%)	Pyogenic (unknown)	5 (4.7%)
Fever	13 (12.2%)	Systemic infection	67 (62.6%)
Weakness	8 (7.5%)	Tuberculosis	13 (12.2%)
Others	8 (7.5%)	Procedure-related	18 (16.8%)
		Immunocompromised	3 (2.8%)
Involved vertebral segments	1.75 (\pm 1.45)		
Involved vertebral level		Identified pathogen	
Cervical	4 (3.8%)	Staphylococcus	15 (71.4%)
Lower cervical to thoracic	0	Escherichia coli	4 (19.1%)
Thoracic only	10 (9.4%)	Mycobacterium	1 (4.8%)
Lower thoracic to upper lumbar	9 (8.5%)	Corynebacterium	1 (4.8%)
Lumbar or lumbosacral	71 (67%)		
Widespread or multiple	12 (11.3%)		
Sensory symptoms	15 (51.7%)	Suggested procedures related infection	
Motor weakness	40 (90.9%)	Operation-related	5 (22.8%)
Recovery from neurological deficits	11 (68.8%)	Epidural steroid injection	8 (44.4%)
		Percutaneous vertebroplasty	3 (16.7%)
Treatment		Acupuncture	2 (11.1%)
Conservative treatment	70 (66%)		
Combined surgical debridement	36 (34%)		