



LETTER TO THE EDITOR

Bacteriology of septic arthritis at a regional hospital in southern Taiwan

To the Editor,

We read with great interest the study by Tseng et al,¹ who reported their experience in the treatment of prosthetic joint infections over a period of 8 years at a teaching hospital in central Taiwan. They found that *Staphylococcus aureus* was the most common pathogen, and *Klebsiella pneumoniae* was the most common Gram-negative pathogen among a total of 59 patients with prosthetic joint infections. However, we wondered if this finding on the bacteriology of septic arthritis could be generalized to other hospitals in Taiwan. Therefore, we retrospectively reviewed the bacteriology of septic arthritis at a regional hospital in southern Taiwan to find differences from Tseng et al's study.

This study was conducted at Chi Mei Medical Center, Liouying branch, a 900-bed regional hospital located in southern Taiwan. Patients with culture-proven septic arthritis were identified from this hospital between January 2008 and December 2011.

During the study period, a total of 70 microorganisms were isolated from the synovial fluids of 51 patients with septic arthritis. After excluding one patient with *Candida tropicalis* arthritis who had diabetes and currently undergoing hemodialysis, we enrolled a total of 50 patients with septic arthritis—comprising 35 patients whose condition was caused by Gram-positive cocci and 15 patients infected by Gram-negative bacilli. Overall, the most frequently isolated microorganism was *S. aureus*, followed by *Enterococcus* species, and *K. pneumoniae* (Table 1). Ten (41.7%) of *S. aureus* isolates were methicillin-resistant *S. aureus* (MRSA), and one each of *Escherichia coli* and *K. pneumoniae* isolates were extended-spectrum β -lactamase (ESBL) producers. *Pseudomonas aeruginosa* and *Acinetobacter baumannii* accounted for 16% of pathogens causing septic arthritis.

This survey as well as Tseng et al's study¹ and previous studies^{2,3} had one significant finding—that MRSA should be considered one of the common pathogens causing septic arthritis in Taiwan. Furthermore, we also noted that ESBL-producing *E. coli* and *K. pneumoniae* and other multidrug-

Table 1 Bacterial etiology of 50 patients with septic arthritis who were treated at a regional hospital in southern Taiwan from 2008 to 2011.

Microorganism	Number (%) of the isolates
<i>Staphylococcus aureus</i>	24 (48)
Methicillin-resistant	10 (20)
<i>Streptococcus</i> species	8 (16)
<i>Pseudomonas aeruginosa</i>	6 (12)
<i>Klebsiella pneumoniae</i>	3 (6)
<i>Escherichia coli</i>	2 (4)
<i>Acinetobacter baumannii</i>	2 (4)
Coagulase-negative staphylococci	1 (2)
<i>Salmonella</i> species	1 (2)
<i>Proteus mirabilis</i>	1 (2)
<i>Enterococcus</i> species	1 (2)
<i>Bacillus</i> species	1 (2)
Total	50 (100)

resistant microorganisms, such as *P. aeruginosa* and *A. baumannii*, were of increasing clinical importance in this clinical entity.

In summary, our findings suggest that broad-spectrum antibiotics should be initially considered for the management of septic arthritis in this setting of increasing antibiotic-resistant bacteria in Taiwan.⁴

References

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