



Letter to the Editor

A Potential Effect of Gram-Negative Bacilli Colonization on Periprosthetic Joint Infection

Dear Editor,

According to Ortiz et al., periprosthetic joint infection (PJI) after total hip arthroplasty was more common among patients who received non-cefazolin (CEZ) + expanded gram-negative antimicrobial prophylaxis (EGNAP) than those who received CEZ + EGNAP [1]. This finding seems clinically essential because it would show the superiority of CEZ over other antibiotics for PJI prophylaxis after total hip arthroplasty. However, I would like to discuss the potential risk of bias in this research.

I am aware that more non-CEZ + EGNAP patients developed infection by CEZ-resistant organisms, such as *Pseudomonas aeruginosa*, *Enterobacter cloacae*, and *Klebsiella aerogenes*, than CEZ + EGNAP patients. However, this difference cannot be explained by the antimicrobial spectrum because CEZ, vancomycin, or clindamycin had no antimicrobial activity for these species.

Patients with methicillin-resistant *Staphylococcus aureus* colonization were likely to be sorted into the non-CEZ + EGNAP group, according to the study methods. However, the risk factor for methicillin-resistant *Staphylococcus aureus* colonization includes previous antibiotic use and hospitalization [2], which can also relate to specific gram-negative bacilli colonization (eg, *Serratia* spp., *P. aeruginosa*, *Acinetobacter* spp., *Citrobacter* spp., *Enterobacter* spp.). In this context, I am afraid that patients in the non-CEZ + EGNAP group were more likely to have specific gram-negative bacilli colonization, resulting in more incidence of PJI by these organisms. Therefore, the results of this research should be interpreted carefully, considering this limitation.

Conflict of interest

The authors declare there are no conflicts of interest. For full disclosure statements refer to <https://doi.org/10.1016/j.artd.2022.08.003>.

References

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