中文題目：探討 colistin loading dose 在院內感染肺炎的治療效果

英文題目：Efficacy of colistin loading dose in nosocomial pneumonia

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Background: Intravenous colistin is one of the main antibiotics used to treat carbapenem-resistant gram-negative bacteria (CRGNB)-associated pneumonia. However, the efficacy and safety of the loading dose of intravenous colistin need to be verified with more evidence.

Method: The aim of this study is to investigate the efficacy and risk of acute kidney injury when prescribing intravenous colistin for critically ill patients with nosocomial pneumonia caused by CRGNB.

Study Design and Methods: This was a multicenter, retrospective study that recruited ICU-admitted patients who had CRGNB-associated nosocomial pneumonia and were treated with intravenous colistin. Then, we classified the patients into colistin loading dose (N = 85) and nonloading dose groups (N = 127). After propensity-score matching for important covariates, we compared the mortality rate, clinical outcome and microbiological eradication rates between the groups (N=67).

Results: The loading group had higher percentages of patients with favorable clinical outcomes (55.2% and 35.8%, p=0.037) and microbiological eradication rates (50% and 27.3%, p=0.042) at day 14 than the nonloading group. The mortality rates at days 7, 14, and 28 and overall in-hospital mortality were not different between the two groups, but the Kaplan-Meier analysis showed that the loading group had a longer survival time than the nonloading group. Furthermore, the loading group had a shorter length of hospital stay than the nonloading group (52 and 60, p=0.037). Regarding nephrotoxicity, there was no significant difference in the risk of developing acute kidney injury between the groups.

Conclusion: The administration of a loading dose is recommended when prescribing intravenous colistin for critically ill patients with nosocomial pneumonia caused by CRGNB.