



To evaluate the safety of colonized cases without antimicrobial treatment, as well as the effectiveness of routine catheter tip cultures in the neonatal intensive care unit (NICU), we performed a retrospective data analysis in a Japanese community hospital” Kitano et al (2018).

Abstract:

OBJECTIVES: Although routine catheter tip cultures are not recommended, previous reports have indicated that some cases of colonization, such as with *S. aureus*, can lead to subsequent bacteremia. To evaluate the safety of colonized cases without antimicrobial treatment, as well as the effectiveness of routine catheter tip cultures in the neonatal intensive care unit (NICU), we performed a retrospective data analysis in a Japanese community hospital.

METHODS: We reviewed all peripherally inserted central venous catheter tip culture results from the NICU ward between April 2012 and June 2017 to determine whether they had antimicrobial treatments or subsequent infections. We then performed a cost analysis for routine catheter tip culturing on patients who were symptom-free during the study period.

RESULTS: Of the 93 positive cases in 80 patients from 1,051 catheter tip cultures, 7 cases had suspected infections and were treated with antimicrobials. The other 73 symptom-free,

positive cases had no subsequent or exacerbated symptoms to suggest they had an infection without antimicrobial treatment. The total cost for catheter tip culturing during the study period was 548,731 JPY. After excluding cases with symptoms of infection at the time of culturing, the efficacy of routine catheter tip cultures on symptom-free patients was estimated to be zero.

CONCLUSION: Symptom-free colonization did not affect clinician management in this study, and all colonized cases without suspected infections were safely managed without antimicrobials. Furthermore, this study found that routine catheter tip culturing is not cost-effective; therefore, this practice may be no longer recommended in the NICU.

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Reference:

Kitano, T., Takagi, K., Arai, I., Yasuhara, H., Ebisu, R., Ohgitani, A., Kitagawa, D., Oka, M., Masuo, K. and Minowa, H. (2018) Efficacy analysis of routine catheter tip cultures in a neonatal intensive care unit. *Pediatrics International*. February 22nd. .

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