



We sought to evaluate risk factors for developing persistent bacteremia due to CoNS CRBSI in infants, in order to identify those who require early aggressive management” Furuichi and Miyairi (2016).

Abstract:

BACKGROUND: Coagulase-negative Staphylococcus (CoNS) is the predominant cause of catheter-related bloodstream infections (CRBSI). Infants in neonatal intensive care units (NICU) often suffer from CoNS CRBSI, which are often refractory to treatment.

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OBJECTIVES: We sought to evaluate risk factors for developing persistent bacteremia due to CoNS CRBSI in infants, in order to identify those who require early aggressive management.

METHODS: We conducted a retrospective case-control study of infants in the NICU who developed CRBSI due to CoNS. Patient demographics, condition and management of CRBSI were compared between those with persistent and non-persistent bacteremia. Furthermore, prognosis of infants in the NICU after CoNS CRBSI was evaluated.

RESULTS: Seventy six episodes of CRBSI, including 17 persistent bacteremia and 59 non-persistent bacteremia, were analyzed. In univariate analyses, persistent bacteremia was significantly associated with corrected age equivalent to gestational age of 22-28 weeks at onset of CRBSI, platelet count $<100,000/\mu\text{L}$ (OR = 11.5; $P < 0.001$), use of vasopressor (OR = 5.38; $P = 0.003$), and delayed CVC removal (OR = 6.25; $P = 0.003$). In multivariate analysis, persistent bacteremia was significantly associated with platelet count $<100,000/\mu\text{L}$ (OR = 7.80; $P = 0.007$), and delayed CVC removal (OR = 5.07; $P = 0.03$). Infants with persistent bacteremia tended to have a lower survival rate after CoNS CRBSI, however this was not statistically significant ($P = 0.21$).

CONCLUSIONS: Early CVC removal should be considered for the treatment of CRBSI due to CoNS in infants with platelet counts of less than $100,000/\mu\text{L}$.

Reference:

Furuichi, M. and Miyairi, I. (2016) Risk factors for persistent bacteremia in infants with catheter-related bloodstream infection due to coagulase-negative Staphylococcus in the neonatal intensive care unit. *Journal of Infection and Chemotherapy*. September 16th. .

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