



We evaluated the effect of central venous catheter management on cancer patients with gram-negative bloodstream infections” Fares et al (2019).

Abstract:

OBJECTIVE: Gram-negative organisms have become a major etiology of bloodstream infections. We evaluated the effect of central venous catheter management on cancer patients with gram-negative bloodstream infections.

METHOD: We retrospectively identified patients older than 14 years with central venous catheters who were diagnosed with gram-negative bloodstream infections to determine the effect of catheter management on outcome. Patients were divided into 3 groups: Group 1 included patients with central line-associated bloodstream infections (CLABSI) without mucosal barrier injury and those whose infection met the criteria for catheter-related bloodstream infection; group 2 included patients with CLABSI with mucosal barrier injury who did not meet the criteria for catheter-related bloodstream infection; and group 3 included patients with non-CLABSI.

RESULTS: The study included 300 patients, with 100 patients in each group. Only in group 1 was central venous catheter removal within 2 days of bloodstream infection significantly associated with a higher rate of microbiologic resolution at 4 days compared to delayed central venous catheter removal (3-5 days) or retention (98% vs 82%, $P = .006$) and a lower

overall mortality rate at 3-month follow-up (3% vs 19%, $P = .01$). Both associations persisted in multivariate analyses ($P = .018$ and $P = .016$, respectively).

CONCLUSIONS: Central venous catheter removal within 2 days of the onset of gram-negative bloodstream infections significantly improved the infectious outcome and overall mortality of adult cancer patients with catheter-related bloodstream infections and CLABSI without mucosal barrier injury.

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Reference:

Fares, J., Khalil, M., Chaftari, A.M., Hachem, R., Jiang, Y., Kantarjian, H.M. and Raad, I.I. (2019) Impact of Catheter Management on Clinical Outcome in Adult Cancer Patients With Gram-Negative Bacteremia. *Open Forum Infectious Diseases*. 6(10), p.ofz357. doi: 10.1093/ofid/ofz357. eCollection 2019 Oct.

