

Microbiology Difference Between Colonized Catheters and Catheter-related Bloodstream Infections

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摘要

Abstract

Background/Aims: Central vein catheters for patients receiving total parenteral nutrition have a high incidence of colonized catheters and catheter-related bloodstream infections. However, the actual incidence and bacterial pattern have not been well studied. This study was undertaken to investigate the difference in bacteriology between colonized catheters and catheter-related bloodstream infections. **Methodology:** From January 1997 to March 1998, three hundred and fifty-four patients receiving total parenteral nutrition were included in this study. The patients ranged in age from 49 to 80 years, 151 women and 203 men. Colonized catheters and catheter-related bloodstream infections were defined. **Results:** The culture was performed in 249 catheter tips (249 of 614, 40.6%). 60 tips had organisms. The organisms cultured from colonized catheters were Gram(+) aerobic bacteria (34, 56.7%), fungi (14, 23.3%), and Gram(-) aerobic bacteria (12, 20%). The organisms cultured from catheter-related bloodstream infections were fungi (16, 64%), Gram(-) aerobic bacteria (5, 20%), and Gram(+) aerobic bacteria (4, 16%). Dermatogenic infection in colonized catheters should be stressed, but systemic fungal infection in catheter-related bloodstream infections should be emphasized. **Conclusions:** A striking difference exists in bacterial species between colonized catheters and catheter-related bloodstream infections. Further studies on different treatment strategy for colonized catheters and catheter-related bloodstream infections should be undertaken. The combined approach of a total parenteral nutrition team, sterile protocols, and early diagnosis of fungaemia should be advocated for the total parenteral nutrition patients.