The aim of this study was to evaluate the outcome of antibiotic lock therapy in bloodstream infections in pediatric hematology/oncology patients in a tertiary care hospital, Karachi” Qureshi et al (2019).

Abstract:
BACKGROUND: Intravascular catheters are susceptible to infections, thus requiring catheter removal and leading to increased morbidity and costs. Antibiotic lock therapy (ALT) is a therapeutic technique that is used to salvage the catheter. The aim of this study was to evaluate the outcome of antibiotic lock therapy in bloodstream infections in pediatric hematology/oncology patients in a tertiary care hospital, Karachi.

METHODS: A retrospective review was performed from January 2013 to December 2017 of pediatric hematology/oncology patients with bloodstream infections and who received ALT at Aga Khan University Hospital. All cases of polymicrobial infections, catheter removal, or malfunction before the completion of ALT were excluded. Descriptive analysis was carried out using SPSS version 20.

RESULTS: A total of nine hematology/oncology patients were eligible. The catheter was salvaged in 7/9 (77.8%) children, and in 2/9 (22.2%) cases, catheter was removed because of persistent bacteremia. The most common organism isolated was Staphylococcus non-aureus species (33.3%). Relapse with a similar pathogen occurred in 2 (22.2%) patients and 2 (22.2%) of them developed an exit-site infection.

CONCLUSION: In our experience, in almost two thirds of the cases, the catheter was salvaged, but disappointingly, relapses were high when the infection was due to Staphylococcus spp. Although this is a small study, our results show that ALT can be a potential safe adjunctive strategy to treat catheter-related bloodstream infections (CRBSI). However, we need larger prospective studies to test the safety and efficacy of ALT to develop specific ALT recommendations and guidelines particularly in children.

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