Pattern of causative micro-organisms in catheter related blood stream infections | 1

Gram negative microorganisms were more commonly responsible for CRBSI in our settings” Mohsin (2017).

Abstract:

BACKGROUND: Catheter related blood stream infections (CRBSI) are the leading cause of morbidity in HD patients. The majority of these infections relate to haemodialysis catheters. There is a paucity of local data on microbial agents responsible for CRBSI in our region. This prompted our study.

METHODS: This Prospective observatory survey was conducted in Department of Nephrology, King Fahd Hospital, Hofuf KSA from Nov 2014 to Jan 2017 (26 months). It was performed on dialysis patients with HD catheters who developed features of CRBSI. Blood cultures were taken from the patient and cultured microorganisms were observed and stratified according to type and prevalence in relation to age gender and comorbidities.

RESULTS: There were 210 distinct episodes of CRBSI. 61.5% (n=129) were due to gram negative microorganisms and 38.5% (n=81) were due to Gram positive microorganism. Fifty-three events were due to Coagulase Negative Staphylococcus aureus. Enterobacter cloacae accounted for 28 events. Pseudomonas 19 events, Enterococcus faecalis 13, Klebsiella 11, Acinetobacter accounted for 8 events. CRBSI was observed more frequently in males (n=136), diabetics (n=113) and in age 40 years±19 years(n=97).

CONCLUSIONS: Gram negative microorganisms were more commonly responsible for CRBSI in our settings. Enterobacter cloacae was most common gram-negative microorganism responsible for CRBSI, a finding not observed in other studies. There was significant predisposition to diabetics, male gender and middle age group. We need further studies to observe antibiotics sensitivity of microorganisms so that we can standardize empirical antibiotics in cases of CRBSI.

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