



The prevalence and associated risk factors for blood stream infections in haemodialysis patients

Kavitha D^{1*}, Kanimozhi K¹, Panneerselvam A¹, Giri P², Bhooma V²

¹Department of Botany & Microbiology, A.V.V.M. Sri Pushpam College (Autonomous), Poondi, Thanjavur, Tamil Nadu, India

²Kidney Care, C50, 10th B Cross, Thillai Nagar, Tiruchirappalli, Tamil Nadu, India

Abstract:Infection is the main source of complications and the second driving reason for mortality in patients on haemodialysis. The rates of bloodstream infection (BSI) in haemodialysis patients diverge as indicated by the kind of venous access utilized. However, the prevalence and risk factors of BSI in India especially Tamilnadu has been poorly documented. This study was aimed to assess the prevalence and associated risk factors for the advancement of bloodstream infections in patients experiencing haemodialysis in a private hospital, Tamilnadu, India. The study was conducted between January --July 2016, one hundred chronic kidney disease patients on haemodialysis were considered as cases. Twenty patients from the same centre who did not present positive blood culture during the study period were considered as control group. Data were analysed using medcalc statistical software. Out of 100 cases, 73 (63%) patients with Diabetes *Mellitus* (DM):37, DM with HT: 15, Hypertension (HT):13, without DM, HT:08) were observed no BSI and 27 patients (27%) (DM:11, DM with HT: 07, HT:05, NIL DM, HT: 04) had BSI when compared with controls. Out of 27 patients, 19 patients had gram positive (*Staphylococcus aureus*: 14, *Staphylococcus epidermidis*: 05) and 08 had gram negative infections (*Escherichia Coli*:04, *Pseudomonas aeruginosa*:04). In conclusion, 27% of haemodialysis patients have high risk of bloodstream infections when they have poor controlled diabetes as comorbidity and predominantly with gram positive infections.

Key words: Bloodstream infections, haemodialysis, Diabetes Mellitus, Hypertension, gram positive.