There was no efficacy of BG-thin noble metal coated CVCs in reducing infectious and non-infectious complications (thrombosis) in our study” Iftikhar et al (2019).

Abstract:

BACKGROUND: Patients with haematological malignancies and stem cell transplant recipients are at high risk of opportunistic infections. Little international and no national data is available comparing noble metal coated versus uncoated central venous catheters (CVC) in this special population of severely immunocompromised patients. Objective of the study is to compare infectious and non-infectious complications of noble metal coated versus uncoated central venous catheters in patients undergoing stem cell transplantation and receiving chemotherapy for acute myeloid leukaemia.

METHODS: This is a prospective, cross-sectional, randomized study (January to December 2016), enrolling 45 consecutive patients undergoing stem cell transplantation or chemotherapy for acute myeloid leukaemia. Patients were randomized in 2 groups. Twenty 23 patients received standard CVC and 22 patients received CVC catheters coated with three noble metals (Gold, Silver, Palladium). Patients were observed for catheter related infectious and noninfectious complications. Data was analysed using SPSS.

RESULTS: Mean age was 24.3 (±4.91) in uncoated and 25.09 (±5.22) in coated CVL group. CRBSI infection was detected in 2 (8.6%) and 3 (13.6%) patients in uncoated and coated
group respectively with p-value of .279. There was no statistically significant difference in febrile episodes between coated (95.4%) and uncoated (91.3%) group. While we considered non-infectious complications, 2 patients in coated (8.6%) and 1 in uncoated CVCs group (4.3%) had CVC thrombosis which was not significant statistically.

CONCLUSION: There was no efficacy of BG-thin noble metal coated CVCs in reducing infectious and non-infectious complications (thrombosis) in our study.

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