Catheter failure rates in hemodialysis patients with tunneled cuffed central venous catheters

The study highlighted that first tCVC survival rates and patient survival rates were high in HD patients who were using tCVCs as long-term vascular access, with low incidence of catheter-related infections” Shi et al (2017).

Abstract:

BACKGROUND: As of now, only a few studies have focused on the failure of tunneled cuffed venous catheter (tCVC) and mortality of hemodialysis (HD) patients using tCVC as long-term vascular access, whose vascular condition for arteriovenous fistula was not very satisfactory. In this study, we aimed to provide information about the first tCVC failure and survival rates of patients in this population.

METHODS: Fifty-nine patients who used tCVC from January 1, 2009 to December 31, 2014 in our HD center were analyzed in this retrospective study and followed up either until their death or until December 31, 2015. The first tCVC and patient survival rates were analyzed.

RESULTS: The incidence of catheter-related infections was 0.3 per 1,000 patient-days. The median survival duration of first tCVC was 45.0 (95% CI 29.3-69.7) months and the median survival time of all patients was 56.3 (95% CI 34.1-78.5) months by Kaplan-Meier analysis. Advanced age (hazard ratio 1.055, p < 0.05) and diabetic mellitus (HR 4.147, p < 0.05) at the initiation of HD were significant risk factors of first tCVC failure, while male (HR 2.712, p < 0.05) and cardiovascular diseases (CVDs; HR 4.139, p < 0.05) were significant risk factors for patient mortality as deduced by Cox proportional hazards methods.

CONCLUSIONS: The study highlighted that first tCVC survival rates and patient survival rates were high in HD patients who were using tCVCs as long-term vascular access, with low incidence of catheter-related infections. In the study it was found that advanced age and diabetic mellitus at the initiation of HD influenced first tCVC failure, whereas male and CVDs seemed to be risk factors for patient mortality.
Reference:


doi: 10.1159/000455062.

Thank you to our partners for supporting IVTEAM