This study aimed to evaluate the effects of hemodialysis catheters on the survival of subsequent arteriovenous fistulas, according to the relative localization to the catheters” Ozpak and Yilmaz (2018).

Abstract:

PURPOSE: This study aimed to evaluate the effects of hemodialysis catheters on the survival of subsequent arteriovenous fistulas, according to the relative localization to the catheters.

METHODS: A total of 201 patients who initiated dialysis therapy using a hemodialysis catheter were eligible for this retrospective study. Arteriovenous fistulas were created on the nondominant upper extremity after the placement of hemodialysis catheters. The catheters were removed after four consecutive successful dialyses via arteriovenous fistulas. The effective factors on arteriovenous fistula failure were determined in and the prognostic factors for survival were modeled by regression analysis.

RESULTS: The relative placement of catheters as ipsi- or contralateral was found to significantly affect the survival of the arteriovenous fistulas. The overall survival was significantly longer in the contralateral arteriovenous fistula group (778.7 ± 28.8 vs. 247.3 ± 26.1 days; p < 0.001). The independent predictors of arteriovenous fistula survival were found to be relative side of arteriovenous fistula and hemodialysis catheter, age, and the presence of hypertension in multivariate analyses. CONCLUSION: This study showed that ipsilateral localization of the catheters and arteriovenous fistulas negatively affect the
cumulative arteriovenous fistula survival. Therefore, to improve vascular access survival, side of catheters or arteriovenous fistulas should always be considered.

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