As the number of elderly end-stage renal disease patients lacking suitable vessels for arteriovenous fistula (AVF) is increasing, indications for tunnel cuffed catheters (TCCs) may be expanding. This study aimed to clarify changes over time in the number of patients with TCC and indications for TCCs” Okamoto et al (2018).

Abstract:

INTRODUCTION: As the number of elderly end-stage renal disease patients lacking suitable vessels for arteriovenous fistula (AVF) is increasing, indications for tunnel cuffed catheters (TCCs) may be expanding. This study aimed to clarify changes over time in the number of patients with TCC and indications for TCCs.

METHODS: This single-center retrospective study analyzed 143 catheters for 95 patients who inserted TCCs between July 2005 and July 2017. Patients were divided into two groups (early- and late-phase groups) based on the median observational period. Demographic data and clinical information were then compared.

FINDINGS: Fifty TCCs were inserted in the early phase group, and 93 TCCs were inserted in the late-phase group. The late-phase group was older (77 vs. 70 years; P = 0.003) and showed a higher frequency of hypertensive nephropathy (29% vs. 14%; P < 0.05) and a lower frequency of a history of cardiovascular disease (52.7% vs. 70.0%; P = 0.045). In the late-
phase group, indications for bridge vascular access (0% vs. 11.8%; \( P < 0.05 \)) or severe cardiac dysfunction (8.0% vs. 20.5%; \( P < 0.05 \)) were increased. In addition, the late-phase group showed increases in percentage of patients with the catheter inserted in the femoral vein (10.0% vs. 23.7%; \( P = 0.047 \)), nephrologists performing catheter insertion (56.0% vs. 87.1%; \( P < 0.001 \)), and the patients who underwent superficialization of the brachial artery (28.0% vs. 46.2%; \( P = 0.034 \)). Significant differences in catheter survival, incidence of complications, reasons for catheter removal, or incidence of catheter-related infection were not observed between groups. DISCUSSION: Patients with indications for TCC may be increasing due to an increase in elderly end-stage renal disease patients whose activities of daily living have decreased. In addition, indications for bridge vascular access were widely accepted in the late-phase group.

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