

## 터널식 투석용 도관의 임상적 유용성

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### Natural Course of Tunneled Hemodialysis Catheter; Its Use, Disuse, and Stay

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**Background:** Tunneled hemodialysis catheter (tHDC) is considered inferior to arteriovenous fistulas and grafts in the view of the maintenance of access patency and ensuing complications. The purpose of this study was to document the natural history of tHDC by investigating the indications of catheter insertion, reasons for its removal and the rate of catheter survival when used as a maintenance hemodialysis access.

**Method:** Five hundred forty patients who underwent tHDC insertions for various indications in Seoul St. Mary's hospital from January 2009 to February 2015 were examined in a retrospective manner.

**Result:** The most common indication for the tHDC insertion was the initiation of HD (n=268, 49.7%). Out of 268 patients initiating HD, only 54 patients had immature vascular access, 145 patients without access, 37 patients waiting for scheduled transplantation, 4 patients in the middle of PD catheter break-in, and 28 patients planning maintenance HD with the tHDC. The other indications of the tHDC insertion were CRRT (n=173, 32%), vascular access dysfunction needing surgical intervention (n=32, 5.9%), transfer from PD to HD (n=31, 5.7%), and plasmapheresis (n=12, 2.2%). The most common reason for tHDC removal was the maturation of the vascular access (41.6%) (duration of catheter stay (DCS) 51.8 days in cases of tHDC insertion with vascular access, 96.6 days in cases of tHDC insertion without vascular access). The other reasons were patient death (23.2%) (DCS 15.1 days), recovery of kidney function (9.6%) (DCS 37.4 days), transplantation (9.2%) (DCS 56.5 days), starting PD (7.9%) (DCS 18 days in cases of PD catheter break-in, 53.4 days in cases of PD catheter reinsertion after treating peritonitis), catheter dysfunction (3.7%), catheter-related infection (3.2%), completing plasmapheresis (1.3%) (DCS 15.4 days), and other (0.4%). Cumulative catheter survival rate as a maintenance access was 78.6%, 52.8%, 45.2%, and 37.7%, at consecutive 50 day intervals.

**Conclusion:** Our data show a relatively low survival rate of tHDCs when stayed as a maintenance access compared with AVF and AVG. These data are consistent with the fact that tHDC has been used as a bridging alternative while preparing dialysis access and it has been considered as a mean of maintenance route in small number of patients with exhausted vascular access and limited life expectancy.

**Key Words:** 터널식 투석용 도관

Tunneled hemodialysis catheter