

RETROSPECTIVE EVALUATION OF HEPARIN COATED TUNNELED CATHETERS IN A UNIVERSITY CENTER.

Gaurav Jain, Michael Allon, Ivan D. Maya. University of Alabama at Birmingham, Division of Nephrology, Birmingham, AL.

Tunneled dialysis catheters are prone to frequent malfunction and infection. Catheter malfunction is usually due to thrombosis in the catheter lumen. It has also been hypothesized that catheter thrombi may serve as a nidus for catheter infection, thereby increasing the risk of bacteremia. Recently, a heparin-coated catheter has been introduced commercially. The goal of the present study was to evaluate whether heparin-coated catheters had longer patency (primary outcome) or a lower risk of catheter-related bacteremia (secondary outcome), as compared with non-coated catheters.

We retrospectively analyzed the outcomes of 175 new, cuffed, tunneled, dialysis catheters placed in the IJ vein at our medical center. These included 89 heparin-coated catheters (Decathlon Gold) and 86 non-heparin-coated catheters placed during a 16-month period. Both catheters had a similar split catheter design. The 2 patient groups were similar in age, sex, race, diabetes, CAD, PVD, and hx CVA. The major outcomes are summarized in the table.

	Heparin-coated	Non-coated	P value
N pts	89	86	
Cum cath surv			
at 90 days	71%	64%	0.53
at 180 days	48%	41%	
Median surv	170 days	152 days	
Inf-free cath surv			
at 90 days	63%	50%	0.06
at 180 days	42%	28%	
Median surv	129 days	84 days	

Cumulative catheter survival was not different between heparin-coated and non-coated catheters. Infection-free catheter survival tended to be lower in heparin-coated catheters, but was not statistically significant ($P=0.06$). The proportion of catheters requiring tPA instillation was not different (13.5 vs 18.5%, $P=0.36$).

In conclusion, heparin-coated catheters do not have longer survival than non-coated catheters, nor do they require less frequent thrombolytic instillation. There is a trend to lower frequency of infection in heparin-coated catheters.