

**Central Line Access for Hemodialysis Adversely Affects Ipsilateral Arteriovenous Graft Outcomes**

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**Objectives:** Current national guidelines recommend if central catheter is needed for dialysis treatment, contralateral placement placements should be favored over an ipsilateral position. We set forth to delineate any clinically significant outcomes in patients undergoing arteriovenous graft (AVG) placement who were successfully cannulated with existing ipsilateral or contralateral central catheter for dialysis treatments.

**Materials and Methods:** Our dialysis access database was examined over a four-year period for AVG placements in the upper extremity with an ipsilateral (I-CL) or contralateral (C-CL) central line for hemodialysis. Outcomes examined included successful cannulation, functional patency (successful needle cannulation and usage on dialysis), thrombosis events and endovascular interventions per access. We also examined previous access procedures and patient demographics. Student’s t-test\*\* and Fisher’s Exact test\* were utilized.

**Results:** A total of 46 AVG were placed in 43 male patients. (TABLE 1).

	C-CL (n=28)	I-CL (n=18)	p value
Functional Patency (mean days ± SD)	746 ± 414	442 ± 367	<u>0.01</u> **
Thrombosis Events (mean ± SD)	0.7 ± 0.9	1.0 ± 2.5	0.25**
Interventions per Access (mean ± SD)	2.0 ± 2.0	1.8 ± 2.7	0.76**
Mortality Rate (%)	4/28 (14%)	10/18 (55%)	0.08*

The only factors in terms of patient demographics found to be different between the two groups was I-CL had a statistically significant higher rate of anticoagulation use (38% vs. 3.6%; p=0.004\*) compared to C-CL respectively.

**Conclusions:** In following patients with and without ipsilateral central line placement, there was a statistically significant drop in functional patency without a difference in cannulation rate, thrombosis events nor overall endovascular interventions. Interestingly, almost a third of the I-CL patients were on an anticoagulation medical regiment with an increase trend in mortality. It is not clear if these factors or other are contributing to decreased AVG patency rates and warrants further future study.

