

Table 1: Baseline Characteristics and Study Endpoints

| Variable | Group 1 (N=48) | Group 2 (N=54) | P value |
|--------------------------------|----------------|----------------|---------|
| Age (±SD), years | 69±9 | 63±11 | 0.40 |
| Male gender, n | 48 | 52 | 0.17 |
| Diabetes, n | 30 | 37 | 0.52 |
| Hypertension, n | 40 | 49 | 0.26 |
| Peripheral Vascular Disease, n | 7 | 10 | 0.59 |
| Coronary Artery Disease, n | 24 | 21 | 0.25 |
| Congestive Heart failure, n | 21 | 27 | 0.65 |
| Access type, n | | | 0.27 |
| AV fistula | 26 | 35 | |
| AV graft | 22 | 19 | |
| Access failure, n | | | |
| Overall | 12 | 4 | 0.01 |
| AV fistula | 1 | 1 | |
| AV graft | 11 | 3 | |
| Infection, n | 6 | 2 | 0.09 |
| Revision, n | 14 | 5 | 0.01 |
| Thrombosis, n | 19 | 3 | <0.001 |
| Fistulogram, n | 18 | 34 | 0.01 |

Results: There was no significant difference in demographics, comorbidities, or type of access between the two groups. Overall access loss and revision were higher and statistically significant in group 1 vs. group 2 (Table 1). Access thrombosis was also significantly higher in group 1 vs. group 2 (Table 1). Graft failure was significantly higher in the first year compared to native fistula failure in both groups (n= 14 vs. 2; p value <0.001). Although not statistically significant, access infection tended to be higher in group 1 vs. group 2 (Table 1). **Conclusion:** Access surveillance decreases the rate of access thrombosis and failure but requires more procedures and interventions. It appears that access surveillance has a greater impact on preventing graft loss vs. native fistula loss during the first year of follow-up.

Disclosure of Financial Relationships: nothing to disclose

PUB434

Deadlock in Hemodialysis Angioaccess (DHDA) Thanh Cao Huu, Cridlig Joelle, Michele Kessler, Luc Frimat. *Nephrology, CHU Nancy, Vandoeuvre, France.*

The authors reported observations of deadlock in hemodialysis angioaccess (DHDA) of 15 patients (9 F & 6 M) with mean age at 59±18 years, treated by hemodialysis for 127±86 months. Co-morbidity as diabetic mellitus and obesity were noted in 8 patients, arteriopathy and coronaropathy in 12, calciphylaxis and chronic inflammatory diseases in 4. Risk factors incriminated of DHDA were: high incidence of central veins catheterism (CVC) (6±4 catheters per patient including 4±3 non-tunnelled-catheters and 3±3 permanent tunnelled catheters (PTC) (Canaud) per patient.. Only 1 patient did receive 2 subclavian catheters before DHDA situations. They received up to 11±6 surgical angioaccess failures including fistula, PTFE, or shunt. Only 3 patients received radio-cephalic in forearms as the first angioaccess while 12 did receive proximal fistula or PTFE. Femoral accesses including catheters, PTFE and saphen vein bypasses were attempted in 9 patients. Stenoses of cave system-central veins occurred in most of the patients (stenoses of internal jugular veins:13, brachio-cephalic veins:13, subclavian veins:10, femoral & iliac veins: 3). Thank to Angioplasties,11 permanent tunnelled catheters were inserted and 6 new angioaccess operated. Without the need of angioplasty, 3 s/clavian PT catheters, 2 femoral vascular accesses and 1 brachial PTFE bypass were performed. These last angio-access comprised aggressive but still fragile solutions since: 1 patient was to be transplanted in emergency, 7 still kept PT catheters, 7 could receive proximal Fistula or PTFE AA (including 2 ligations, 2 stenoses treated by angioplasties and 2 stenoses treated by PTFE bypass). Peritoneal dialysis were contraindicated or failed in all and transplantation was possible in another patient. Hospitalisations were frequent, unpredictable and stressful. 4 Patients died 1 to 6 months after the last AA. In conclusion, the situation of DHDA in our 15 patients was the combination of numerous angioaccess failures and CV catheters & stenoses. Management of DHDA are time consuming. Multi-disciplinary efforts and patience are needed.

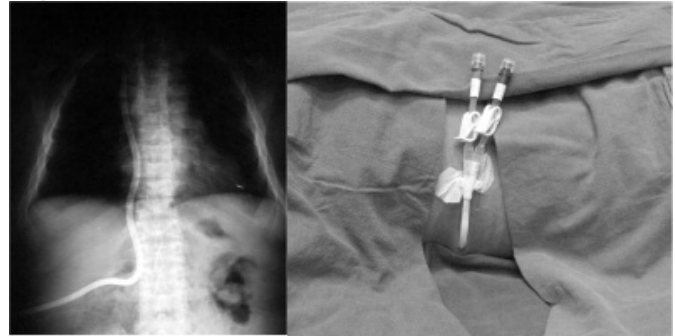
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PUB435

Percutaneous Trans-Lumbar (PTL) Dialysis Catheter Placement, Unto Superior Vena Cava (SVC), Guided by Computed Tomography, a Case Report Javier Castillo Tapia,¹ Alejandro Chavez,¹ Salvador Mendoza,¹ Patricia Peña,¹ Armando Avila,² Juan Rochin Teran,² Leticia Marquez,¹ Luis Alberto Evangelista Carrillo,¹ Abel Puentes Camacho,¹ Jorge Andrade-Sierra,¹ Leonardo Pazarin,¹ Mario Sandoval Sandoval,¹ Enrique Rojas-Campos,³ Alfonso M. Cueto-Manzano,³ Benjamin Gomez-Navarro.¹ ¹*Nephrology and Organ Transplant, IMSS, Guadalajara, Jalisco, Mexico;* ²*Radiology and Imagenology, IMSS, Guadalajara, Jalisco, Mexico;* ³*Medical Research Unit in Renal Diseases, IMSS, Guadalajara, Jalisco, Mexico.*

Introduction: In HD when common vascular accesses (VA) are unavailable it is necessary to consider other sites. The first Latin-American, PTL placement unto SVC, CT guided. **Case.** Female 28 yrs. ESRD (vesicoureteral reflux). 2 renal transplants (1992,1999), from LRD (father) and CD, lost for AR at 36 and 16 mo. HD since Feb-2002, 18 VA (6 mahurkar (MAH), 6 tunelized catheters, 3 native and 3 graft fistulas [GF]). Hepatitis B and C positive; cross-match positive (99%), PRA HLA C-I (100%) and C-II (100%). Last VA

lost (GF-right femoral), perforation and bleeding (August 28 2009) at HD. We placed a MAH useful for 1 week in a subclavian branch (Sept. 2, 2009). We planned a PTL catheter placement unto SVC, guided by CT, as a last option. **TECHNIQUE:** Initial CT to measure distance skin-IVC. Puncture at the lumbar back between the iliac ridge-lumbar spine; IVC was reached after 3-attempts using the Seldinger technique; corroborated by pulsation absence and CT. Using a hydrophilic wire (guide), catheter was introduced from IVC to SVC, CT-corroborated. Skin tunnelization to the right flank. The catheter max. flux reached was 450 ml/hr, recirculation 5%, Kt/V 1.6. June 15, 2010: SCr 12.2mg/dL, Uric acid 9.5mg/dL, P 3.8 mg/dL, Ca 8.5mg/dL, Hb 10.5g/dL, Alb 3.6g/dL. It has 120 catheter/days, with no complications in flux, infections, thrombosis, bleeding, migration and hematoma.



Disclosure of Financial Relationships: nothing to disclose

PUB436

Case Study: HeRO Vascular Access Device Long-Term Outcomes in Renal Transplant Patient with Multiple Co-Morbidities Howard E. Katzman. *Department of Vascular Surgery, University of Miami, Miami, FL.*

Purpose: To report long-term outcomes 47 months after implant of the novel HeRO vascular access device in a catheter-dependent Hispanic male with a history of two renal transplants and multiple co-morbidities.

Methods: The HeRO device was implanted July 25, 2006, in a 31 year-old Hispanic male as part of the HeRO Food and Drug Administration clinical trial. This catheter-dependent patient required dialysis since the age of 8 due to congenital deformity. His exhaustive vascular access history included multiple fistulas, grafts and catheters at the time of HeRO implant. Co-morbidities included hypertension, hepatitis C, central venous stenosis in both brachiocephalic locations, thyroid papillary carcinoma and total thyroidectomy with no history of smoking or diabetes. This patient continues to be followed beyond the clinical trial requirements for evaluation of long-term outcomes.

Results: A HeRO device was successfully placed over-the-wire utilizing the existing dialysis catheter tract in the right internal jugular vein. A femoral bridging catheter was placed and used for acute dialysis until the HeRO device could be cannulated, approximately one month post implant. To-date, this patient has been followed for 47 months post HeRO implant. Two percutaneous HeRO interventions have been required to maintain patency, the first at 42 months post implant and the second at 44 months post implant. At approximately 46 months post implant, the original HeRO graft was replaced with a new HeRO graft due to pseudoaneurysms in the graft segment, which resolved the thrombosis issues. No infections have been reported to-date.

Conclusion: This case report demonstrates that patients ineligible for an upper extremity access due to central venous stenosis may experience the long-term benefits of a subcutaneous arteriovenous access by receiving the HeRO device.

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PUB437

Early Thrombectomy of Arteriovenous Dialysis Grafts: Is It Worthwhile? Vijay Mudunuri, Jeremy C. O'Neal, Michael Allon. *Nephrology, University of Alabama at Birmingham, Birmingham, AL.*

Introduction:

In spite of the National Kidney Foundation's initiative to increase use of autogenous fistulas for vascular access, many patients continue to undergo hemodialysis with arteriovenous (AV) grafts. Clotted AV grafts are treated with endovascular or surgical thrombectomy. The outcomes of thrombectomies performed within 2 months of graft creation were assessed.

Methods:

We retrospectively analyzed the outcomes of all AV grafts placed at our medical center over a 5 year period that required thrombectomy within 60 days of creation. Technical success was defined as the immediate restoration of graft patency. Primary patency was calculated from declot to first intervention and cumulative patency from declot to permanent graft failure. We also compared the outcomes for grafts undergoing thrombectomy at <30 days vs 31-60 days.

Results:

Of 709 AV grafts placed, 98 grafts (14%) clotted within 60 days of creation and underwent percutaneous or surgical thrombectomy, including 63 (9%) within 30 days of graft creation, and 35 (5%) at 31-60 days after creation. Grafts clotting within 30 days of creation typically underwent surgical thrombectomy and those clotting after 30 days usually underwent percutaneous thrombectomy. The immediate technical success was 82%. The median primary graft patency was 14 days and median cumulative graft patency was 38