WELCOME *To the*

2026 SYMPOSIUM

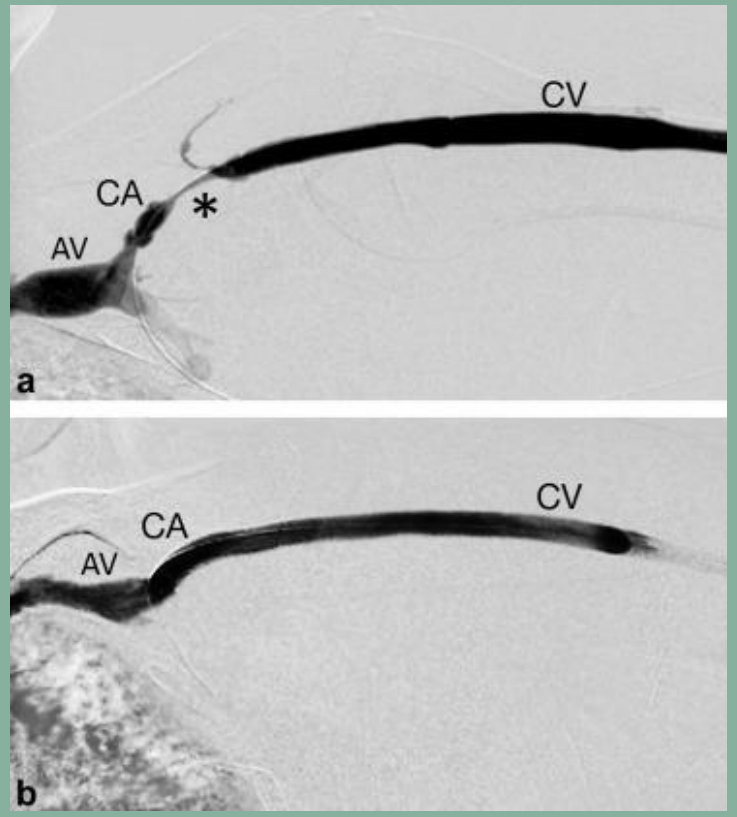
Surgical Management of Cephalic Arch Stenosis via Cephalic Vein Transposition: A Cost-Effective Strategy for Preserving Fistula Patency.

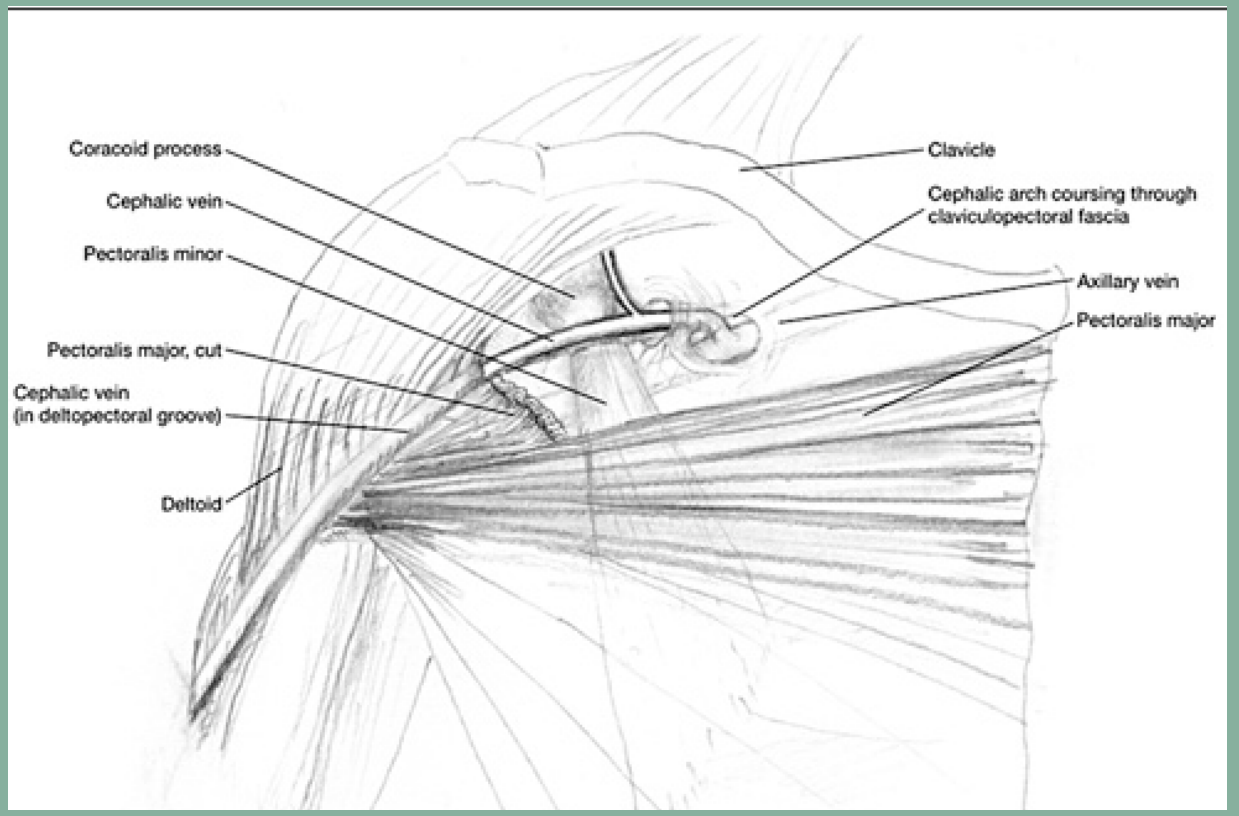
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VASA Vascular Access Society of the Americas
Access Excellence.

Surgical Management of Cephalic Arch Stenosis via Cephalic Vein Transposition: A Cost-Effective Strategy for Preserving Fistula Patency.





Cahalane A. Stent Diameter, Not Cephalic Arch Anatomy, predicts SG patencey in cephalic arch stenosis. J Vasc Interv Radiol 2022
Sivananthan G. Cephalic arch stenosis in dialysis patients: review of clinical relevance, anatomy, current theories on etiology and management. J Vasc Access 2014





Figure 1. Nicaragua (blue) and the cultural region of Mesoamerica (thick red line).

Nicaragua:

- 7 millions population
  - ESRD on HD ≈ 1000 pmp
  - ≈ 50 % are CKD Non Traditional Cuase (CKDnt) Mesoamerican Nephropaty, CKD Unknown Origin (CKDu)

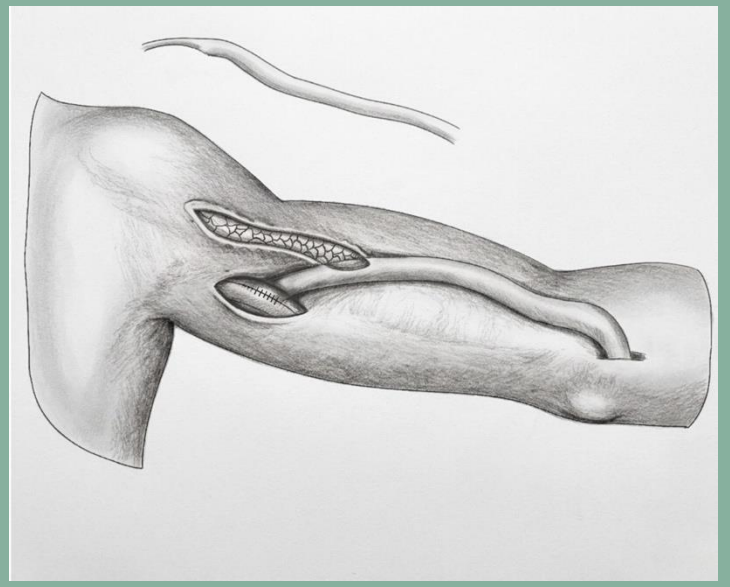
Garcia-Lopez A. Dialysis Vascular Access Training: A Nicaraguan Experience. Kidney International Reports (2021)
Correa-Rotter R. CKD of Unknown Origin in Central America: The Case for a Mesoamerican Nephropathy. Am J Kidney Dis. 2014

Patients and Methods

- Baptist Hospital Hemodialysis Center functioning since 2013. (Social Security Surrogate)
  - 1000 prevalent HD patients. 2026.
  - Mean Age 52 years.
  - 78 % male.
  - Vascular Access:*
    - 80 % autologous AVF
    - 17 % catheter
    - 3 % PTFE
- Cephalic Arch Stenosis from March 2019 to May 2025.
- 30 patients diagnosed and treated, all BC AVF, 0 RC AVF.
- Mean age 46.7 ± 15 years
- 51 % male
- Diagnosis:
  - Clinic
  - Eco Doppler.
  - X Ray Fistulogram.

* Garcia-Lopez A. Maximizing use of available vascular capital for autologous arteriovenous fistula creation and maintenance. J Vas Access 2025









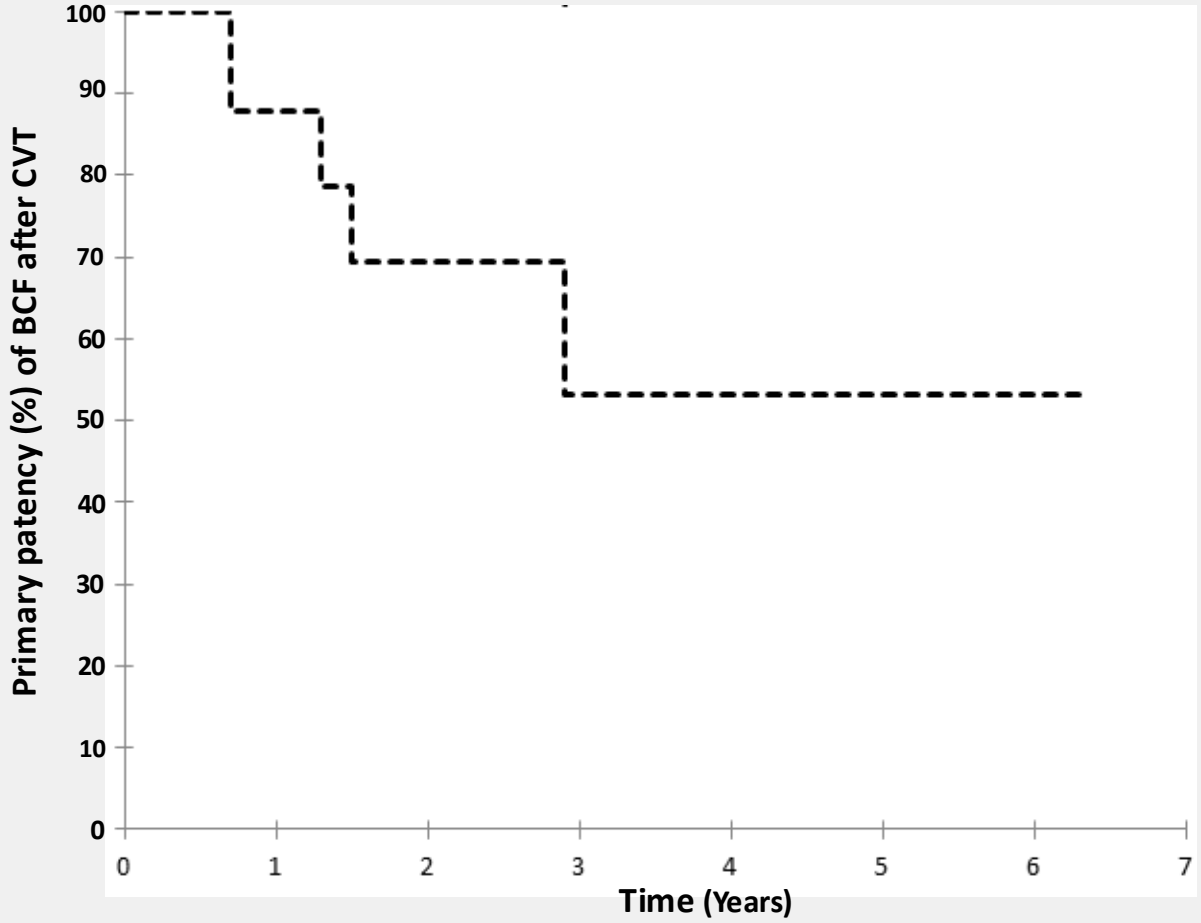
Technical remarks:

- Outpatient
- Local anesthesia plus conscious sedation.
- No HD catheter requirement
- No dialysis interrupt.
- No surgical complications.

Table 1. Comparison of Clinical Variables before and after CVT procedure. A statistically significant after CVT was observed.

Parameter	Before CVT (mean ± SD) [range]	After CVT surgery (mean ± SD) [range]	P value *
Intradialytic venous pressure (IVP) (mmHg) (N = 25)	262.8 ± 15,5 [240 – 300]	154.8 ± 13.7 [140 – 200]	P < 0.001
Bleeding time (minutes) after needle withdrawal (pHBD) (N= 25)	28.6 ± 15.2 [10 – 60]	6.0 ± 3.3 [3-15]	P < 0.001
Kt/V (N = 25)	x = 1.192 ± 0.0277 [1.1–1.2]	x = 1.396 ± 0.0455 [1.3–1.5]	P < 0.001

Fig. 1 Patency outcomes of 30 patients after Cephalic Vein Transposition.



Nr. at Risk							
BCF+CVT	30	26	14	9	4	2	1

Table 2. Comparative Patency Outcomes of different procedures used to treat CAS.

Procedure	Author, Year	No. Patients, Study Design	Post Intervention Patency %			
			6 mo	1 Y	2 Y	3 Y
Endovascular	Kim, 2019	36 PTA, Observational	68.2	57.3		
	Park,2024	36 PTA/Stent, Observational	66	49		17
	D'Cruz 2019	457 patients, Review, Metaanalisis(11 studies)				
		SG	82.7	44		
		BMS	52.2	12.9		
		PTA	23.3	9.5		
	Jackson 2014	19 PTA, Observational	43.7	31		
Cephalic Vein Transposition	Kim 2019	15 Observational	100	87.5		
	Park,2024	16 Observational	87	87		66
	Sigala 2024	25 Observational		79	60	
	Fructuoso 2018	7 Observational	57			
	Current Study	30 Observational	100	88	70	53

Important Clues about CVT effectiveness/Efficiency

- Autologuos nature.
- Diverts flow from the site of disturbances. (Anatomic, Hemodinamic, of Cephalic Arch)
- No major endotelial damage/crushing compared to angioplasty/endovascular.
- Can be performed expeditiously.

Thank you.





Nicaragua, Central America