

TEACHING VASCULAR ACCESS TO RESIDENTS IN FRANCE

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Vascular access/vascular surgery

- Vascular surgery is more involved in vascular access than urologists.
- Vascular surgery is involved in renal transplantation
 - ✓ *Management of patients in renal insufficiency is more and more realized by teams practising both vascular access and grafting*
- Vascular access surgery has taken benefit from the improvements of vascular surgery

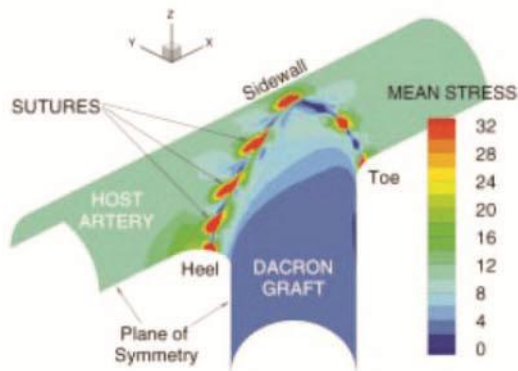
Areas of improvement of vascular access

- materials
- Imaging methods
- Endovascular
- Management of arterial complications after VA

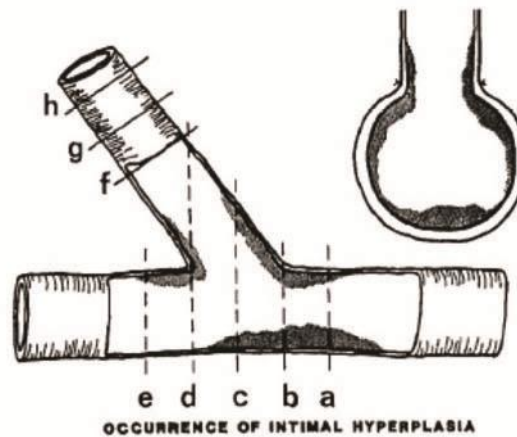
Gore hybrid

- Anastomose termino-latérale

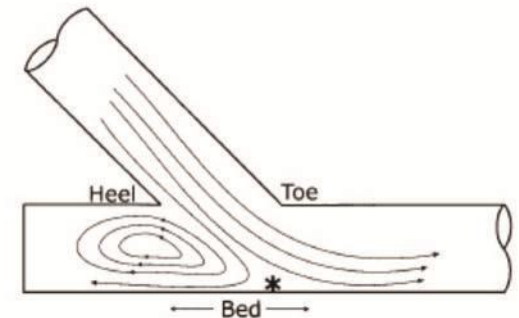
Hyperplasie intimale sur zones de turbulences, chevauchement, suture



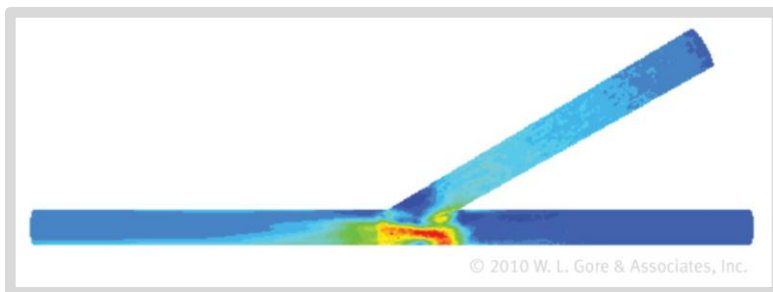
Ballyk et al., *J Biomechanics* 1998; 31:229-3



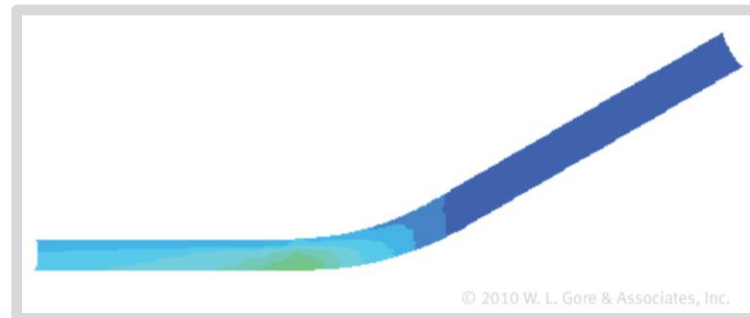
Sottiurai et al., *Ann Vasc Surg* 1981;3(1):26-33



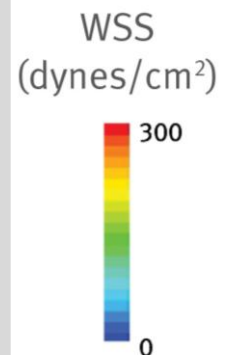
Jackson et al., *J Vasc Surg* 2001;34:300-7



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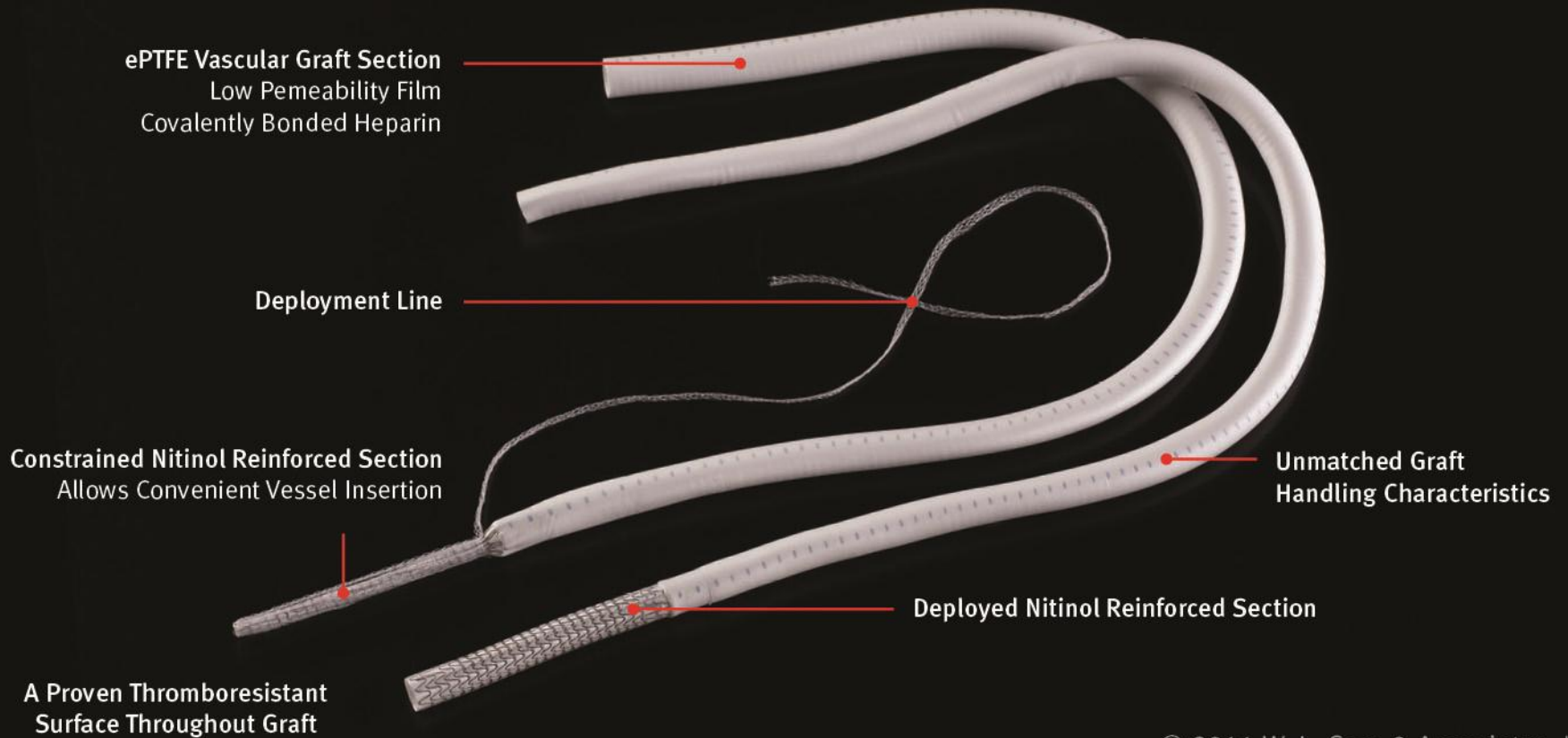


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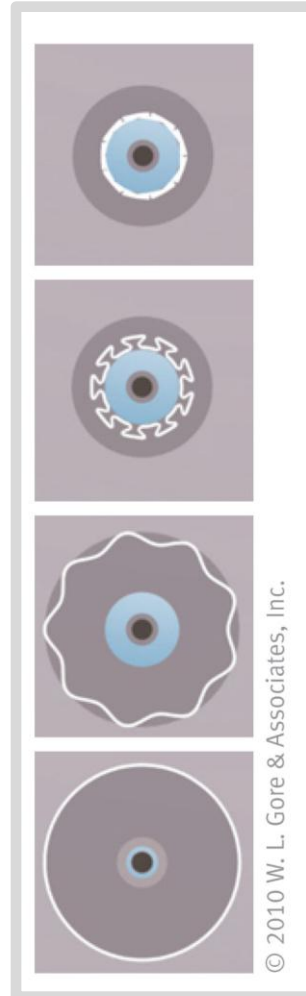
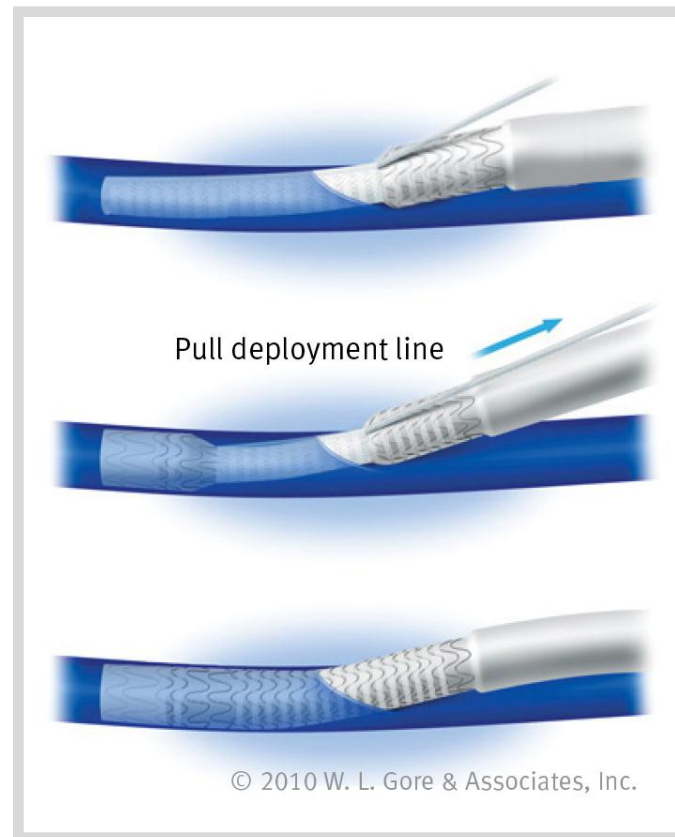
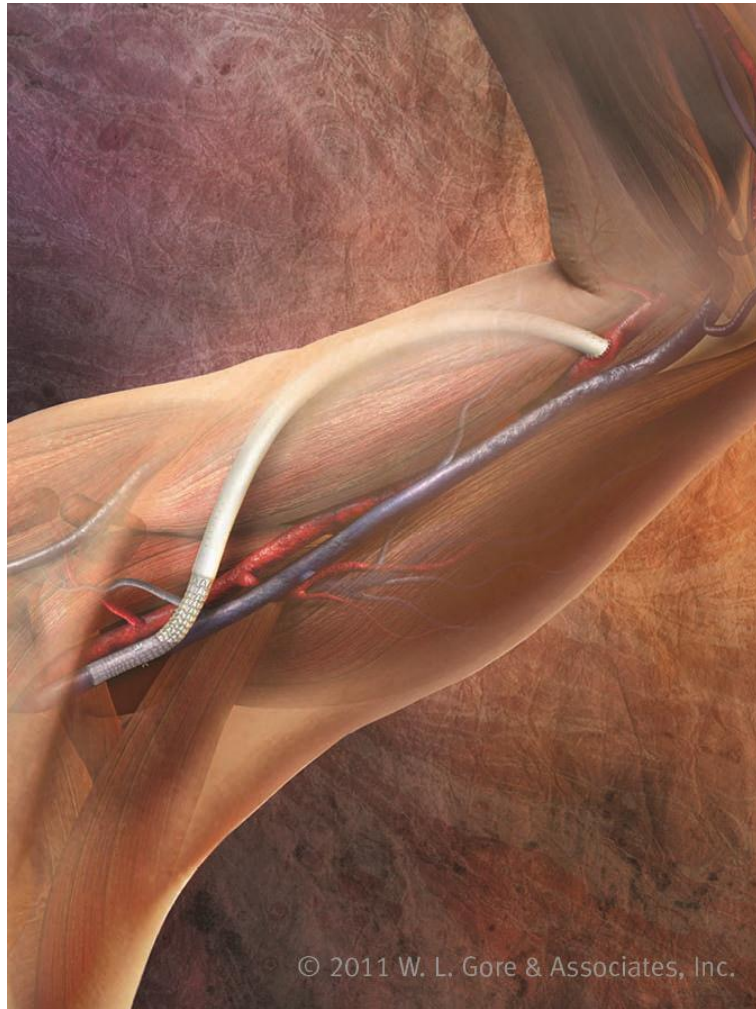
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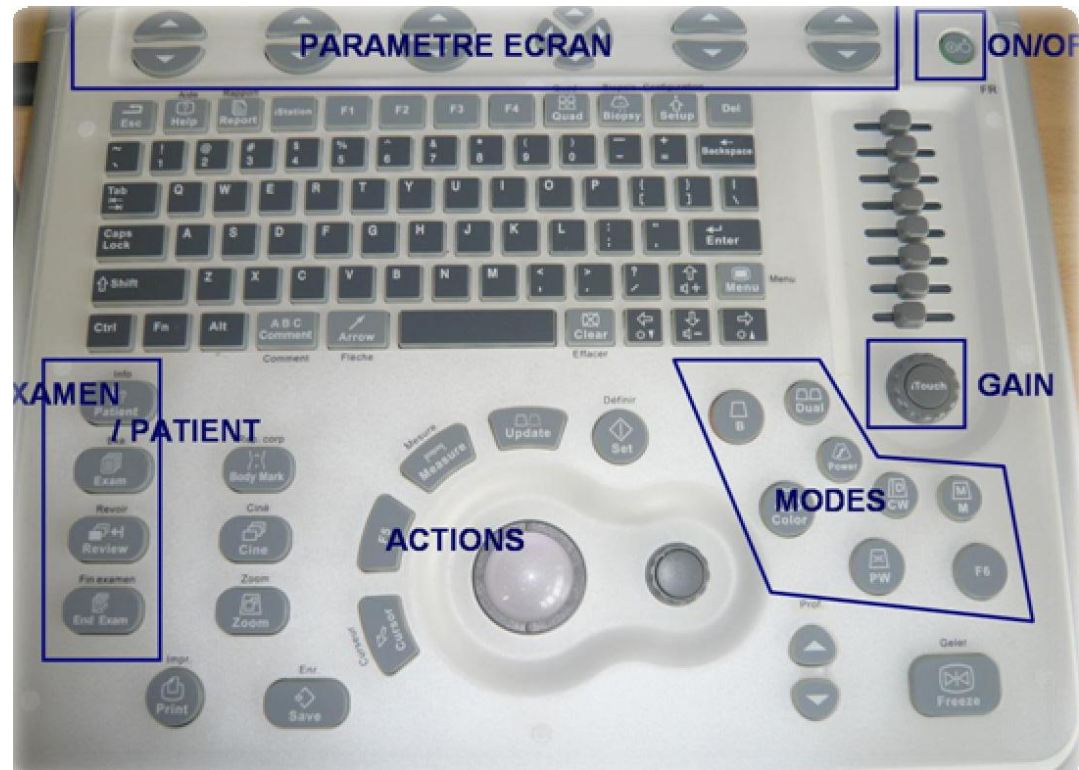
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DUPLEX SCAN



Vein IMAGING

preop
Early F'up
Long F'up
Corrections

Guideline 2.1. Clinical evaluation and non-invasive ultrasonography of upper extremity arteries and veins should be performed before vascular access creation (Evidence level II).

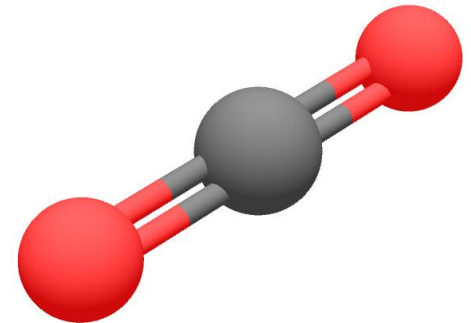
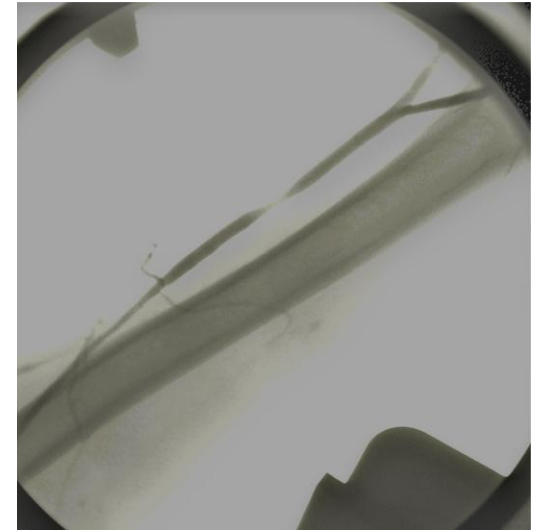
Guideline 2.2. Central vein imaging is indicated in patients with a history of previous central vein catheters (Evidence level IV).

Table 1. Vessel diameters for successful RCAVF creation

Author	Radial artery (mm)	Cephalic vein (mm)
Wong <i>et al.</i> [10]	1.6	1.6
Malovrh [12]	1.5	1.6
Silva <i>et al.</i> [3]	2.0	2.5
Ascher <i>et al.</i> [21]	–	2.5

PER-OPERATIVE IMAGING

- perop VEINOGRAM
 - ✓ *Iodine contrast*
 - ✓ *CO₂*
- DUPLEX SCAN
- Endoscopy
 - ✓ *Basilic vein in 1 time ?*



peroperative VEINOGRAM

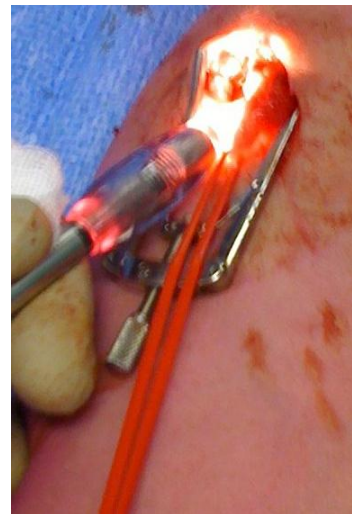
- Evaluation OF VENOUS CAPITAL
 - ✓ *Vein mapping of the upper limbs before VA*
 - ✓ *Predialysis patients*
 - ✓ *When insufficient clinical and/or Doppler*
- Completion veinogram after VA
- Endovascular TT of complications

Duplex scan

- Canaud
- Vein evaluation
garrot, marquage
- Post-operative.



Endoscopy



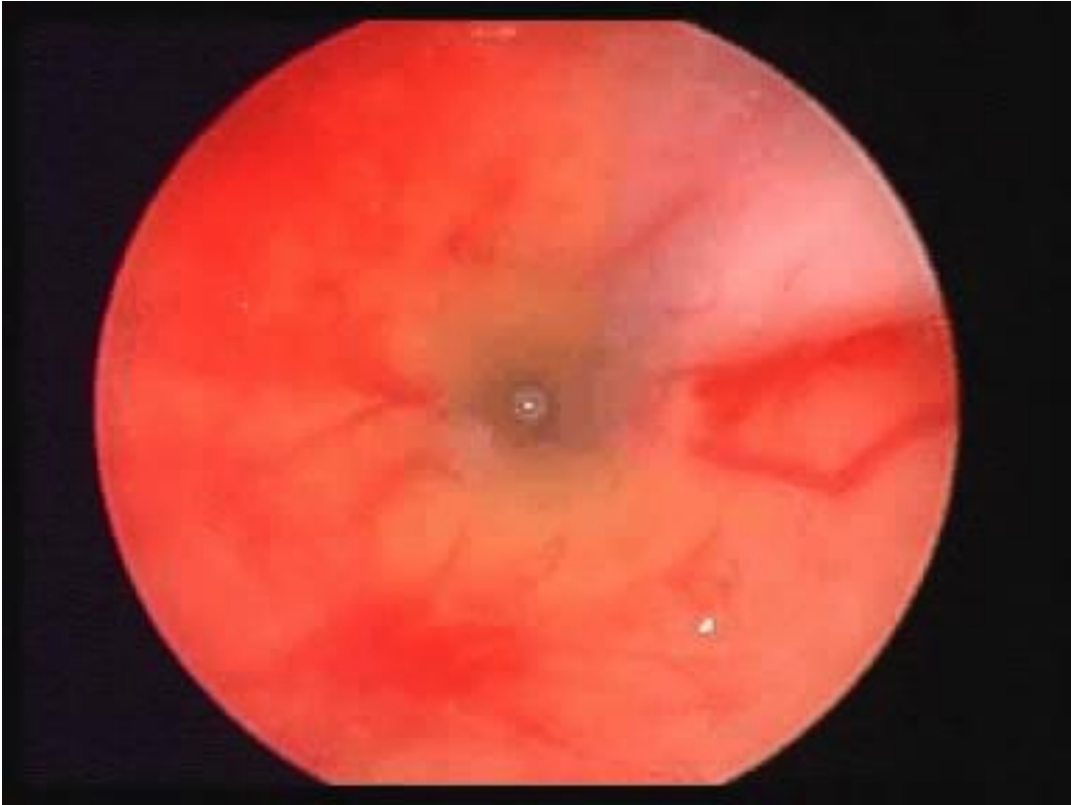
Basilic vein harvesting and collateral section



Endoscopy



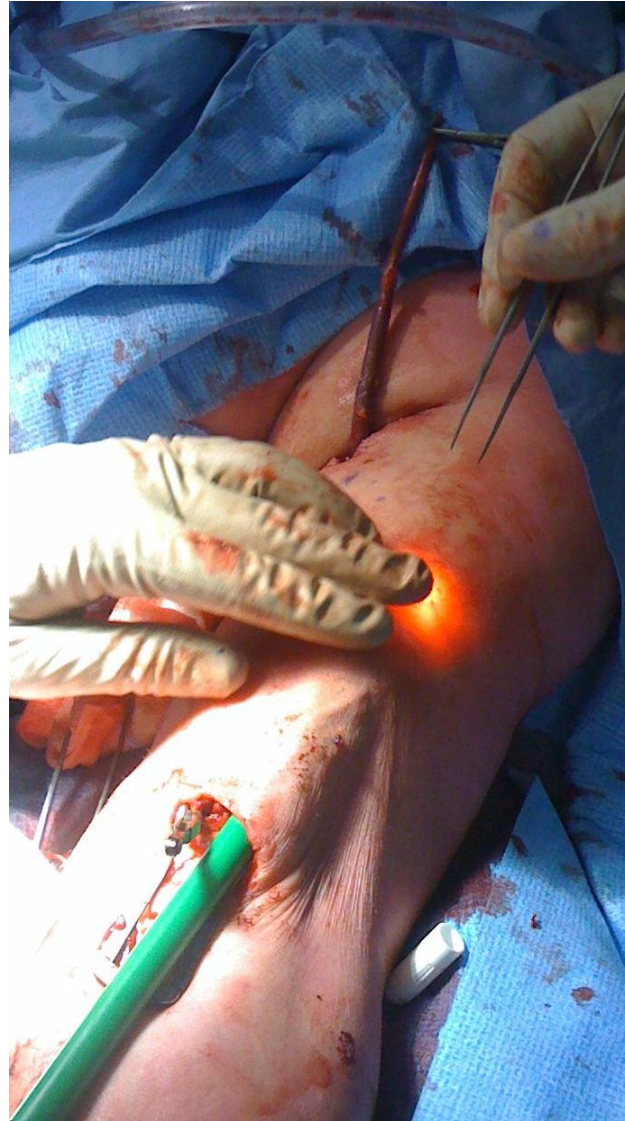
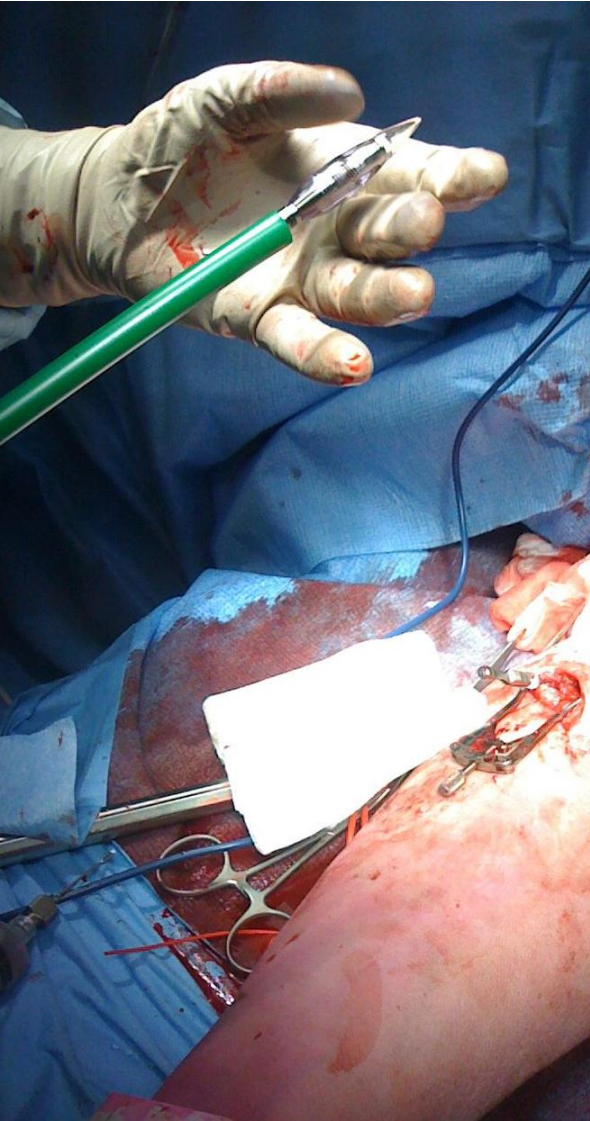
Endoscopy



Crosse basilique



Tunneling



Endoscopy



ORIGINAL ARTICLE

Stent Graft versus Balloon Angioplasty for Failing Dialysis-Access Grafts

Ziv J. Haskal, M.D., Scott Trerotola, M.D., Bart Dolmatch, M.D., Earl Schuman, M.D., Sanford Altman, M.D., Samuel Mietling, M.D., Scott Berman, M.D., Gordon McLennan, M.D., Clayton Trimmer, D.O., John Ross, M.D., and Thomas Vesely, M.D.

Endovascular

Table 3. Treatment Success and Patency End Points in the Intention-to-Treat Population, According to Treatment Group.*

End Point	Stent Graft	Balloon Angioplasty	P Value
	<i>no. of patients/total no. (%)</i>		
Anatomical success	91/97 (94)	68/93 (73)	<0.001
Hemodynamic success	97/97 (100)	93/93 (100)	
Clinical success	85/97 (88)	78/93 (84)	0.49
Procedural success	91/97 (94)	68/93 (73)	<0.001
Primary patency of treatment area			
2 mo	77/96 (80)	71/92 (77)	0.72
6 mo	46/91 (51)	20/86 (23)	<0.001
Primary patency of access circuit			
2 mo	76/96 (79)	71/92 (77)	0.86
6 mo	35/92 (38)	17/86 (20)	0.008

* Definitions of treatment success are listed in the Supplementary Appendix.

Table 4. Adverse Events at 6 Months, According to Treatment Group.*

Adverse Event	Stent Graft	Balloon Angioplasty	P Value
	<i>no. of patients/total no. (%)</i>		
Infection	6/95 (6)	2/90 (2)	0.28
Thrombotic occlusion	31/95 (33)	19/90 (21)	0.10
Restenosis	38/95 (40)	69/90 (77)	<0.001

Aneurysmal degeneration of the donor artery after vascular access

Jean Marzelle, MD,^a Valbon Gashi, MD,^b Hong-Duyen Nguyen, MD,^c Albert Mouton, MD,^d
Jean-Pierre Becquemin, MD,^a and Pierre Bourquelot, MD,^c *Créteil, Tourcoing, Olivet, and Paris, France;
and Pristina, Kosovo*

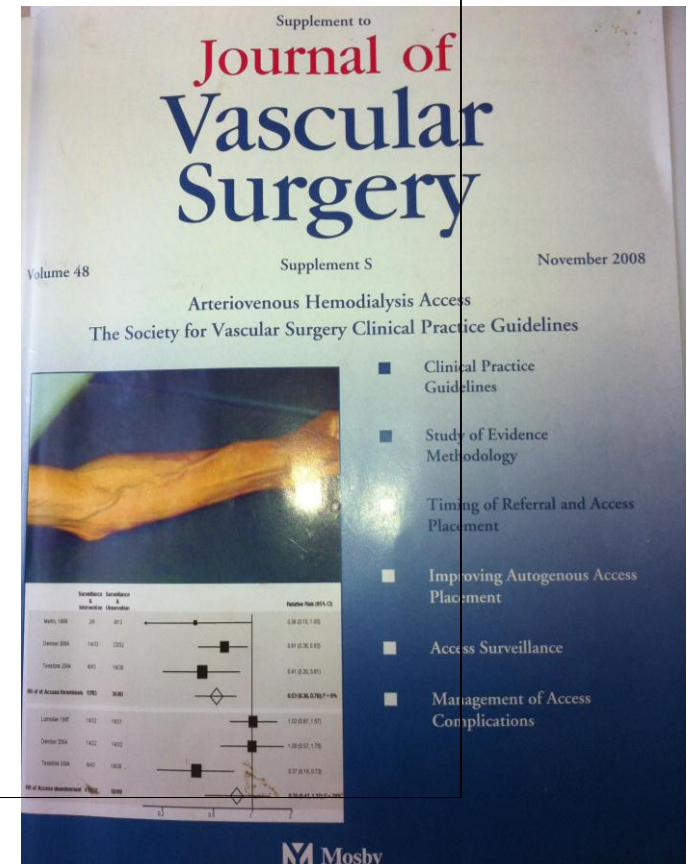
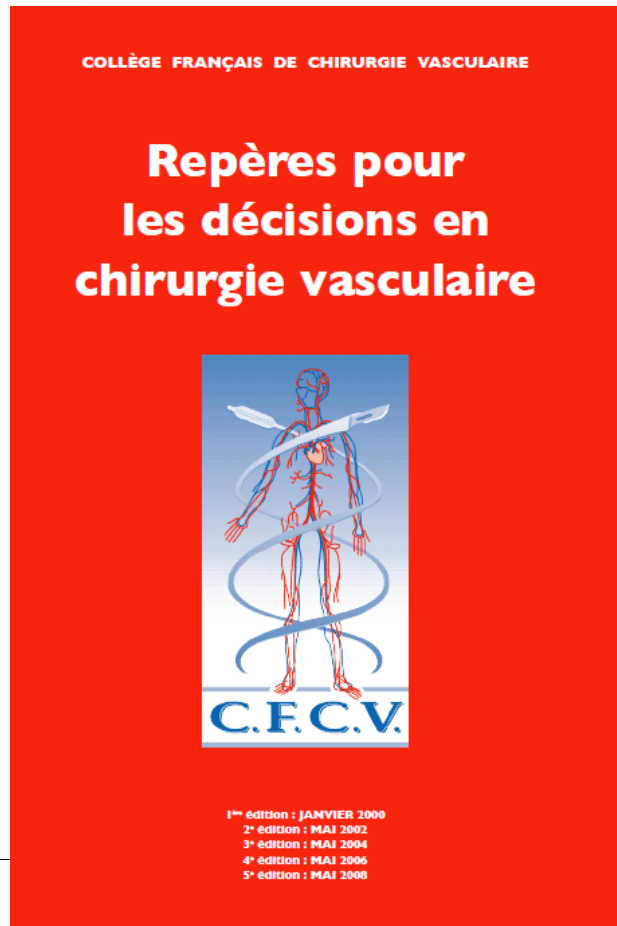
Objective: This retrospective study analyzed the characteristics, potential risks, and therapeutic options of true aneurysms of the donor artery in arteriovenous fistulas (AVFs) for dialysis access.

Methods: We retrospectively collected data of patients with aneurysmal degeneration (AD) after AVF creation from surgeons who were members of the French Society for Vascular Access, treated from January 2006 to May 2011. The study excluded patients with pseudoaneurysms. Patient demographics, type of access, aneurysm characteristics, symptoms, treatment, and follow-up were recorded.

Results: Seven men and three women (mean age, 38.1 ± 5.3 years) were identified with AD (mean diameter, 44.5; range, 24-80 mm). Mean duration of access was 83.6 ± 48.8 months. Diagnosis of AD was at 117.5 ± 53.8 months after access creation. The initial access was radiocephalic, six; ulnobasilic, one; brachiocephalic, two; and brachioasilic, one. Three patients had two successive accesses: one brachioaxillary polytetrafluoroethylene (PTFE) graft and two proximalizations of a failed radiocephalic AVF. Symptoms were pain and swelling, four; pain related to total thrombosis without signs of ischemia, two; median nerve compression, two; pain related to contained rupture, one; and subacute ischemia due to embolic occlusion of both radial and interosseous arteries, one. AD location was brachial, seven; axillary, one; radial, one; and ulnar, one. Eight patients underwent surgical aneurysm excision associated with interposition bypass using great saphenous vein, two; basilic vein, one; PTFE, three; Dacron, one; and allograft, one. Two patients needed secondary PTFE bypass because of progression of AD to the inflow artery and dilatation of the venous bypass. With a mean follow-up of 20.3 ± 17 months, all bypasses but one remained patent.

Conclusions: AD is a rare but significant complication of vascular access. Surgical correction should be discussed in most cases due to potential complications. After resection, the choice of reconstructive conduit is not straightforward. (J Vasc Surg 2012;55:1052-7.)

Standards



Accès vasculaires pour Hémodialyse
Dr Benoit BOURA, Dr Myriam COMBES

Cursus organisation: theoretical sessions

2 Février 2013, Amphi ND Bon Secours (Hôpital St Joseph)

SESSION THEORIQUE OBLIGATOIRE: INFECTIONS 8H45 - 12H30

Conduite à tenir devant un anévrisme infectieux de l'aorte	<i>M Kitzis</i>
Conduite à tenir devant une infection de prothèse aortique/aorto-iliaque	<i>L Chiche</i>
Conduite à tenir devant un pontage infecté infra-inguinal	<i>Ph Tresson</i>
Indications des stents et endoprothèses aortiques	<i>Y Touma</i>

SESSION THEORIQUE OBLIGATOIRE: ABORDS VASCULAIRES 14 H - 17 H

Conduite à tenir devant une zone de nécrose	<i>Q Pellenc</i>
Conduite à tenir devant une anomalie à l'écho-doppler de contrôle	<i>G Franco</i>
Conduite à tenir devant une occlusion de fistule	<i>R De Blic</i>
Abords vasculaires chez l'enfant	<i>P Bourquelot</i>



Cursus organization: practice



Criteria of vascular unit qualification

Article 4 du règlement intérieur du CFCV

Seuils d'activité du service

Le SV doit faire état d'un minimum annuel de 500 admissions en chirurgie vasculaire avec prise en charge des urgences.

N °	Seuils annuels	N
1	Admissions en chirurgie vasculaire	500
3	Reconstructions artérielles ou veineuses centrales, ouvertes, endovasculaires ou coelioscopiques	250
4	Chirurgies veineuses superficielles Si 3 n'est pas suffisant	300
5	Accès d'hémodialyse si 3 n'est pas suffisant	200



DIPLOME UNIVERSITAIRE

CHIRURGIE DES ACCES VASCULAIRES POUR HEMODIALYSE

Directeur et responsable pédagogique :

Pr Laurent Chiche

Co-directeur :

Dr Lucile Mercadal

Avec la collaboration de :

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P. Bourquelot, L. Canaud, P. Cluzel, M. Combes, M. Dadon,
V. Duédal, V. François, J. Gaudric, Y. Georg, A. Guérin, R. Isnard,
C. Isnard-Bagnis, B. Issad, P. Julia, C. Laaengh-Massoni, L. Labriola,
C. Legallais, B. Louail, D. Marra, J. Marzelle, JM. Massoni,
B. Mongrédien, S. Ourhama, T. Palombi, O. Pichot, A. Raynaud,
J. Rottembourg, C. Sessa, F. Thibault, I. Tostivint, C. Vaessen,
O. Van Laere

FACULTÉ DE MÉDECINE PIERRE ET MARIE CURIE
ANNÉE 2012-2013



COURS SFAV Toulouse

31Mai- 1Juin 2013

conclusion

- The aim of the french college of vascular surgery is to promote the teaching of vascular access to the young vascular student
- To promote research in vascular access
- Cf IDEAL RECOMMENDATIONS

No surgical innovation without evaluation: the IDEAL recommendations

- Use of new technologies and procedures in patients are reported, whether successful or not, the **I**nnovation phase
- Endovascular repair for ruptured aneurysm further **D**eveloped in a few specialist centres
- For reporting of the 1st hundred cases, the **E**xploratory phase, both prospective databases and randomised trials to assess feasibility can be very valuable
- Design of initial studies is crucial to obtaining accurate information, to plan the **A**ssessment stage
- Followed by **L**ong-term monitoring to report on any delayed adverse events