



THROMBECTOMIE DES ABORDS DE DIALYSE



CASSIS

www.sres-symposium.org

Centre de congrès
Oustau Calendal

**26 & 27 septembre
2024**

université
de BORDEAUX

Clément Marcellin
Le 26 septembre 2024



INTRODUCTION



Manual Catheter-directed Aspiration and Other Thrombectomy Techniques for Declotting Native Fistulas for Hemodialysis

Luc Turmel-Rodrigues, MD, Alain Raynaud, MD, Bertrand Louail, MD, Bernard Beyssen, MD, and Marc Sapoval, MD

Treatment of failed native arteriovenous fistulae for hemodialysis by interventional radiology

LUC TURMEL-RODRIGUES, JOSETTE PENGLOAN, HERVÉ RODRIGUE, GEORGES BRILLET, ANNE LATASTE, DOMINIQUE PIERRE, JEAN-LOUIS JOURDAN, and DIDIER BLANCHARD

- 1/ Création d'une nouvelle FAV
- 2/ Chirurgie (Fogarty)
- 3/ Thrombectomy endovasculaire: Fibrinolyses, Mécanique (PTD), manuelle (seringue d'aspiration: Turmel-Rodrigues et al, 2000)

PATHOLOGIE

- Complication majeure +> dysfonctionnement de la fistule et l'impossibilité de dialyser sur cet accès les patients.
- 45800 personnes sont dialysés en France et il survient environ 8,8% de thrombose de fistule par an, soit environ 4000 thrombectomies par an.
- La prise en charge des thromboses de fistule de dialyse doit se faire rapidement.

CHIRURGIE / ENDOVASCULAIRE ?

- HAS : endovasculaire ou la chirurgie ouverte
- Endovasculaire est le traitement de première intention (mini-invasif et traiter la sténose par angioplastie).

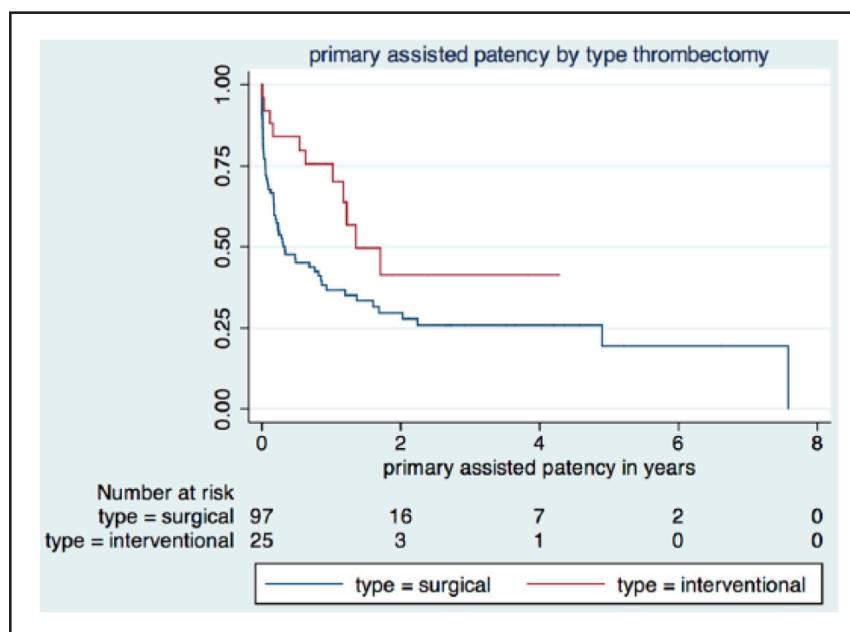
<https://patient.radiologie.fr/fr/traitements-guid%C3%A9s-par-limage/trouver-mon-radiologue-interventionnel>



Comparison of surgical and radiological interventions for thrombosed arteriovenous access

Gary Lambert¹, Jonathan Freedman², Susan Jaffe³
and Teun Wilmink¹

The Journal of Vascular Access
1–6
© The Author(s) 2018
Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/1129729818762007
journals.sagepub.com/home/jva

128 chirurgies
27 thrombectomies endovasculaires



Radiologues interventionnels

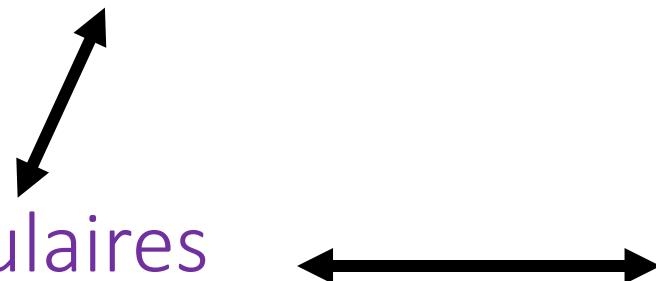
Angioplastie/thrombectomie

Chirurgiens vasculaires

Création FAV/anse

Unités de dialyse
AURAD
Néphrologues

dialyse/suivi



ORGANISATION



- AURAD
- Néphrologue



- Programmation
<24-48 heures

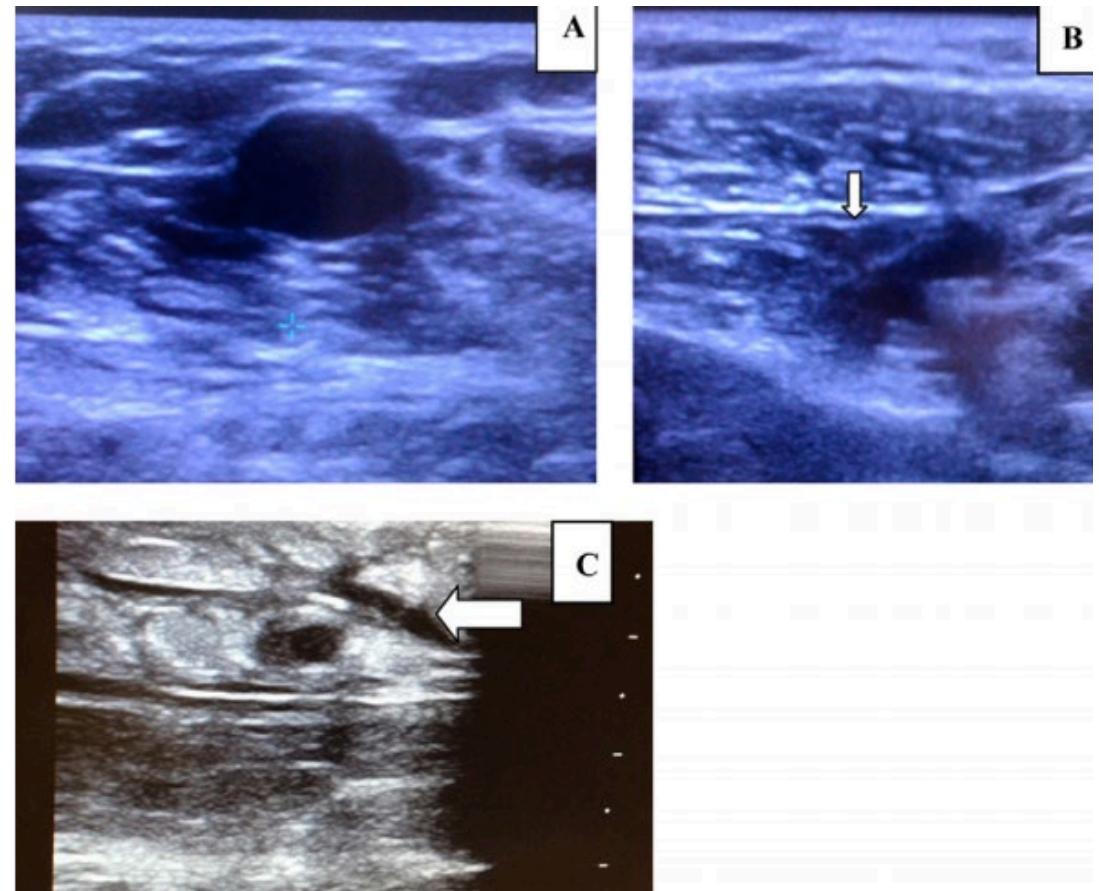
Eviter la pose d'un cathéter veineux temporaire de dialyse.



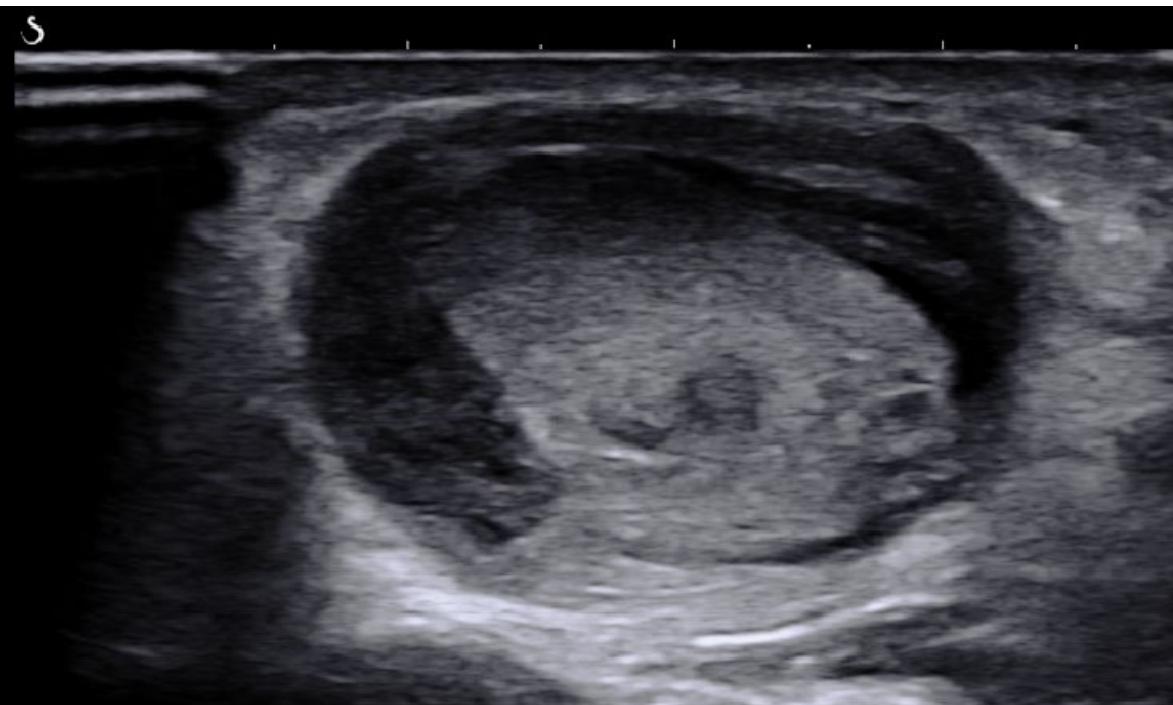
- Consultation d'anesthésie
- Échographie de référence

BILAN PRE-ANGIOPLASTIE

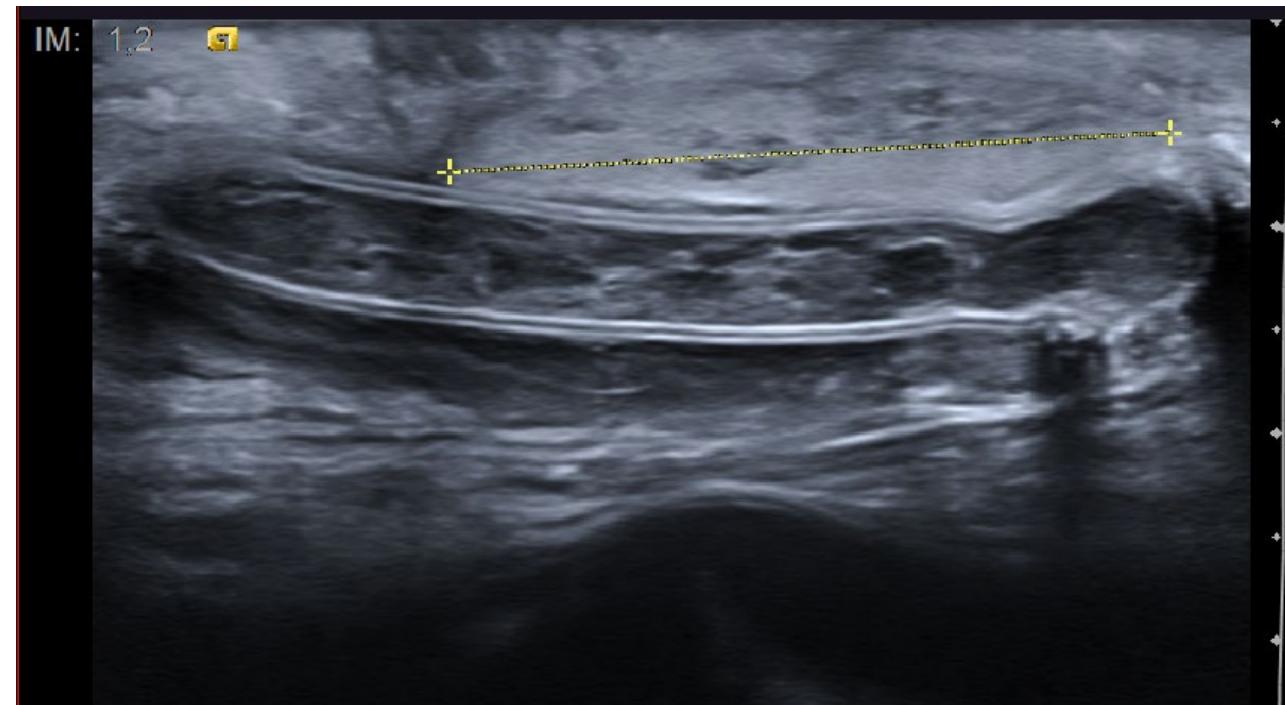
- Anticoagulant/antiagrégant: Pas d'arrêt.
 - TP, TCA, PQ
 - K+, G
-
- ANESTHESIE LOCALE + SEDATION
 - (ALR)
 - ANESTHESIE DE LA STENOSE
(tumescent anesthesia)



ECHOGRAPHIE

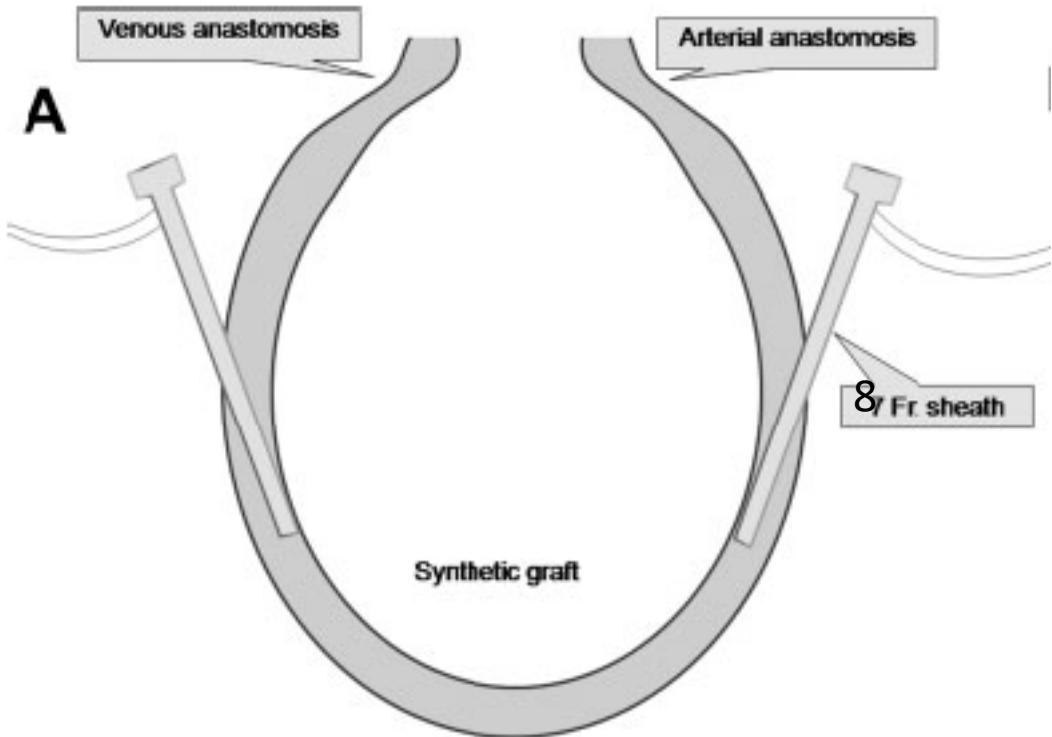


AVF



AVG

2 INTRODUCTEURS 8 French



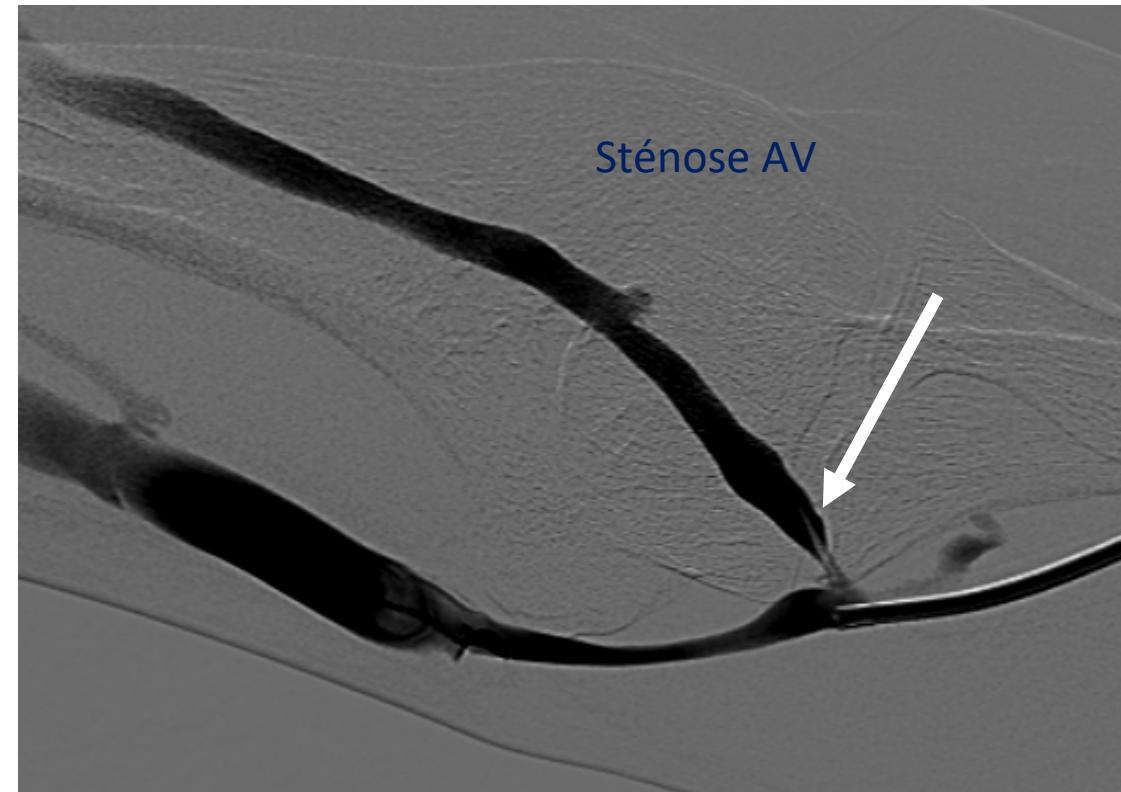
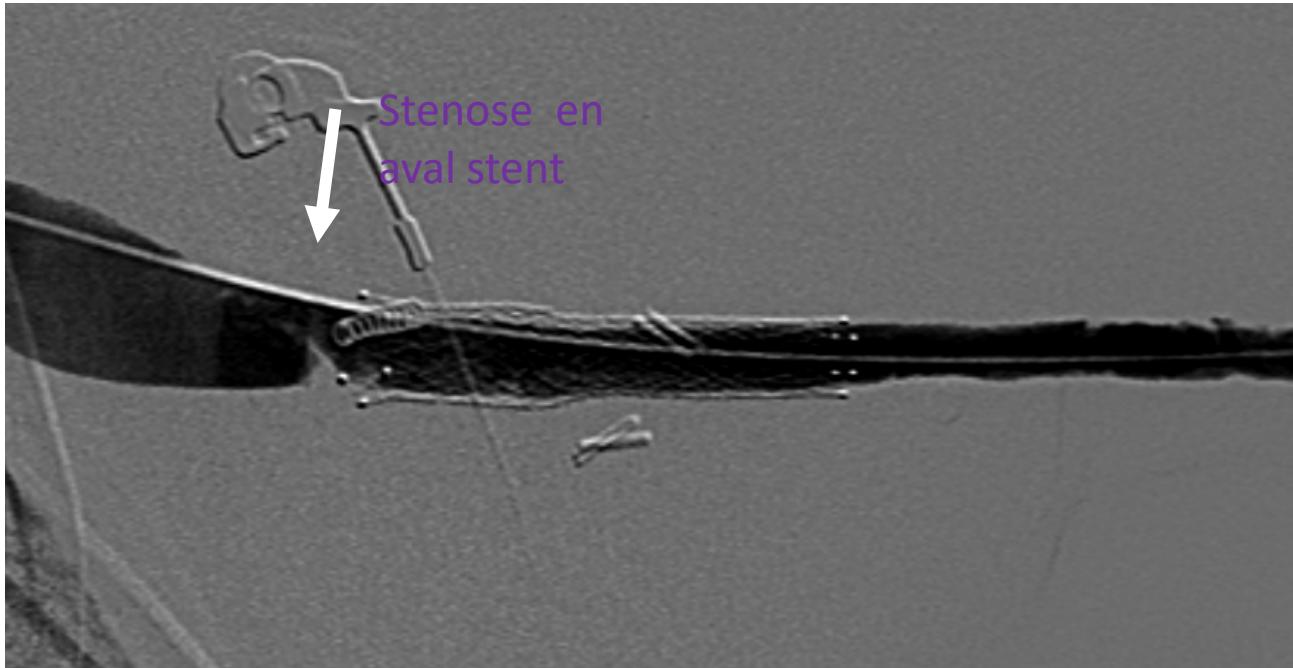
Lai et al

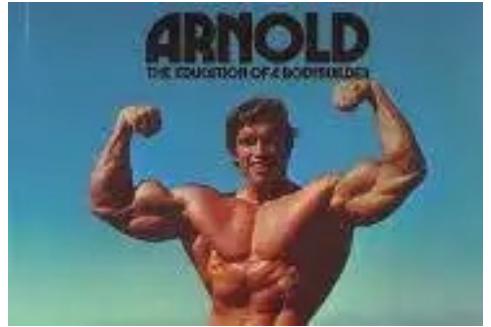
PROCEDURE

- 2 INTRODUCTEURS 8Fr sous ECHOGRAPHIE.
- HEPARINE IV (30UI/kg) .
- ASPIRATION ANTEGRADE.
- ANGIOPLASTIE de la sténose.
- ASPIRATION RETROGRADE.

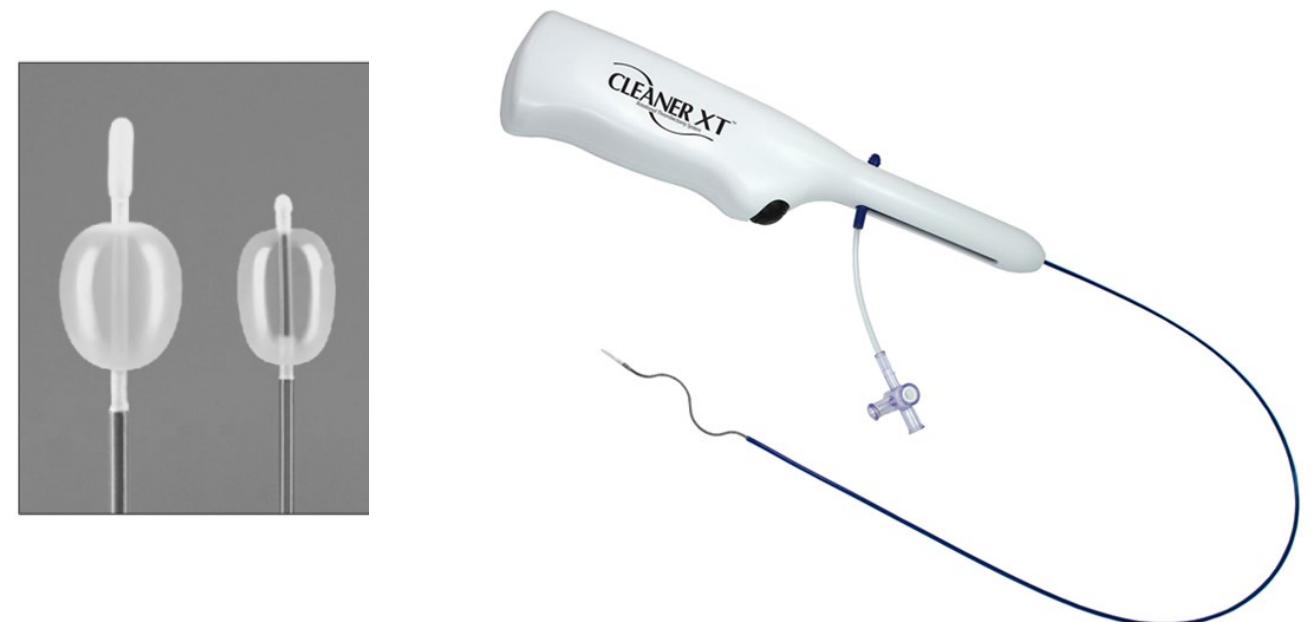
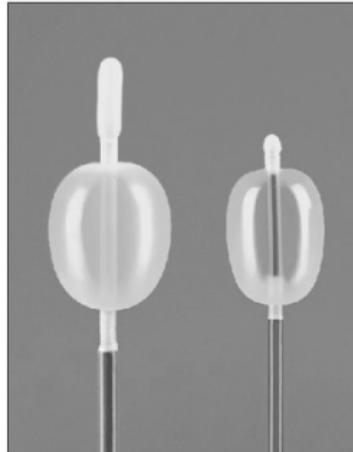
ETIOLOGIES

- Sténoses +++
- Hypotension (greffe, choc)
- Compression





QUEL
MATERIEL
UTILISER ?



BIBLIOGRAPHIE

Mechanical Thrombectomy in Acute Thrombosis of Dialysis Arteriovenous Fistulae and Grafts Using a Vacuum-Assisted Thrombectomy Catheter: A Multicenter Study

Clément Marcellin, MD, Stephen D'Souza, MD, Yann Le Bras, MD,
Francois Petitpierre, MD, Nicolas Grenier, MD, PhD,
Jos C. van den Berg, MD, PhD, and Bella Huasen, MD

35 patients
87.5% succès technique

91.4% succès clinique

6m PP 37.5%

6PA: 50%

6mSP: 62.5%

Complication: 1 perforation

Durée : 38 minutes procédures

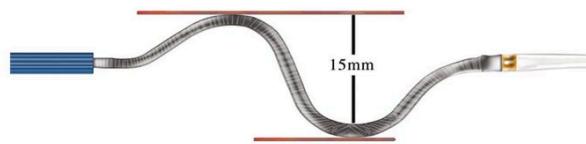
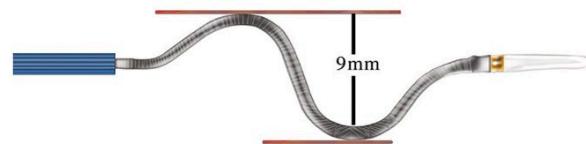
Perte sanguines: 122ml

Cleaner XT Rotational Thrombectomy: An Efficacious Endovascular Technique for Salvage of Thrombosed Arteriovenous Access and a 12 Month Outcome Analysis

Tiffany S. H. Bong, MBBS , Darius K. L. Aw, MD, FRCS , [...], and Jia Sheng Tay, MBBS, MMed, FRCS    [View all authors and affiliations](#)

Volume 30, Issue 3 | <https://doi.org/10.1177/15266028221083222>

- Durée de procédure 62 ± 20 minutes.
- Perméabilité primaire à 1 an: 56%
- Perméabilité assistée à 1 an: 59%
- Perméabilité secondaire à 1 an: 94.4%



COUT DE LA PROCEDURE

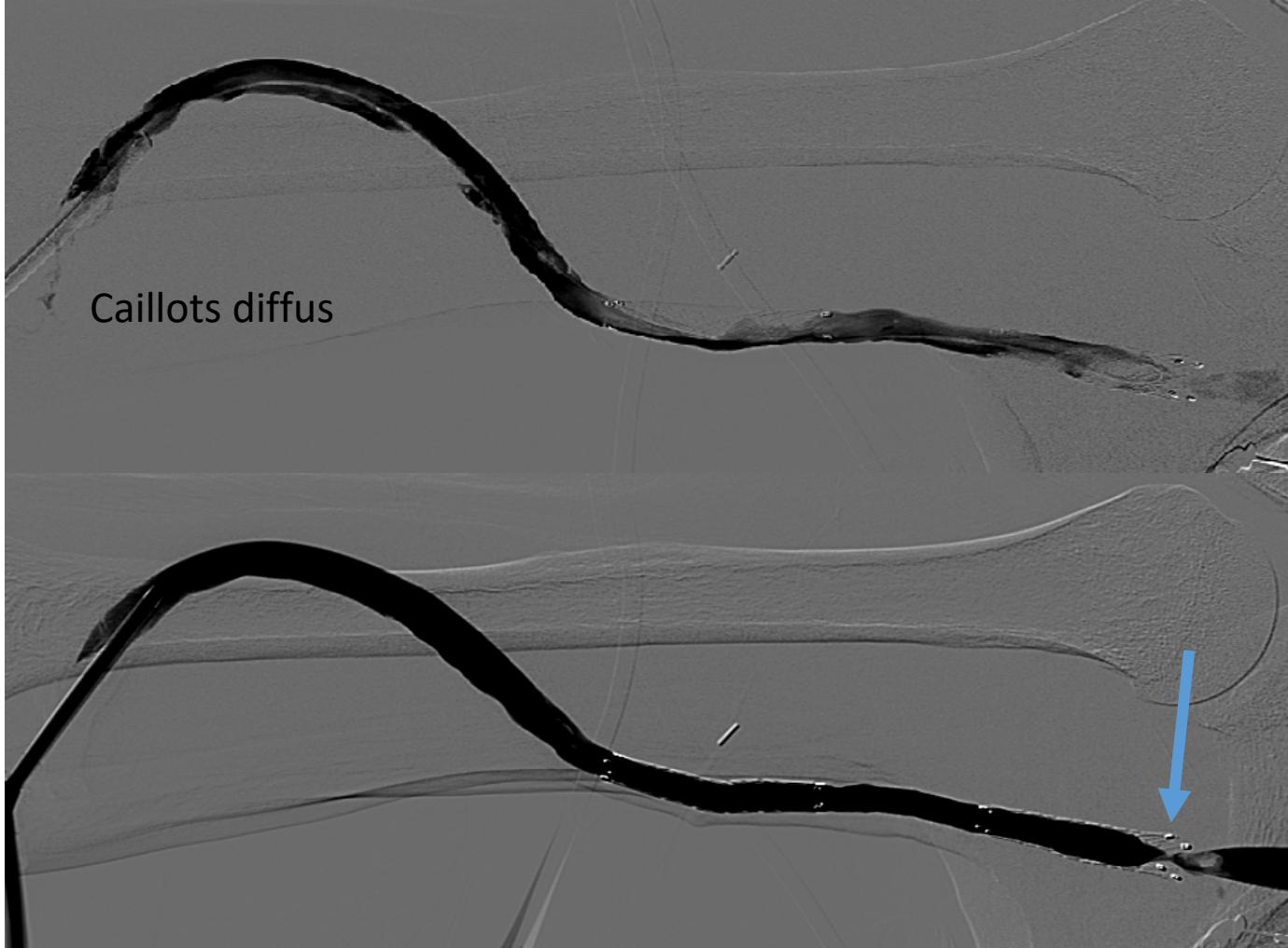
- **COUTS MOYENS DETHROMBOSE**
- COUT MOYEN MATERIEL : **2724,04828**
- COUT MATERIEL NON REMBOURSABLE : **2559,410345**

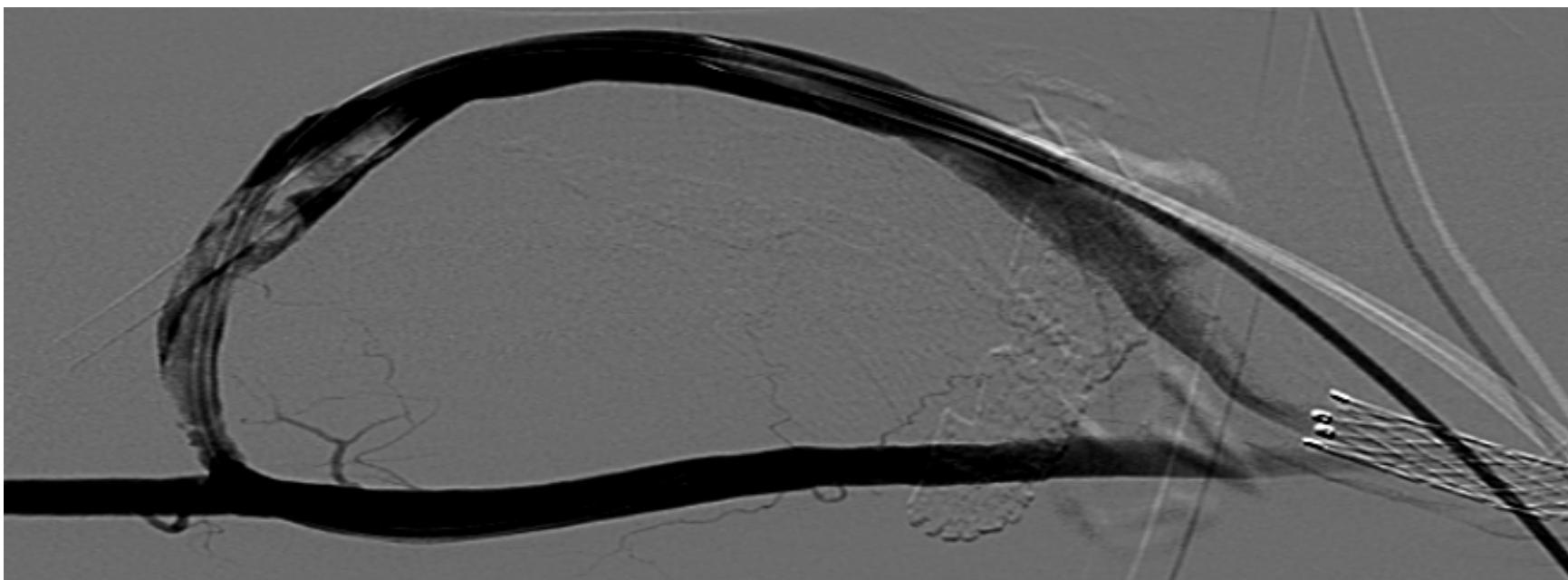
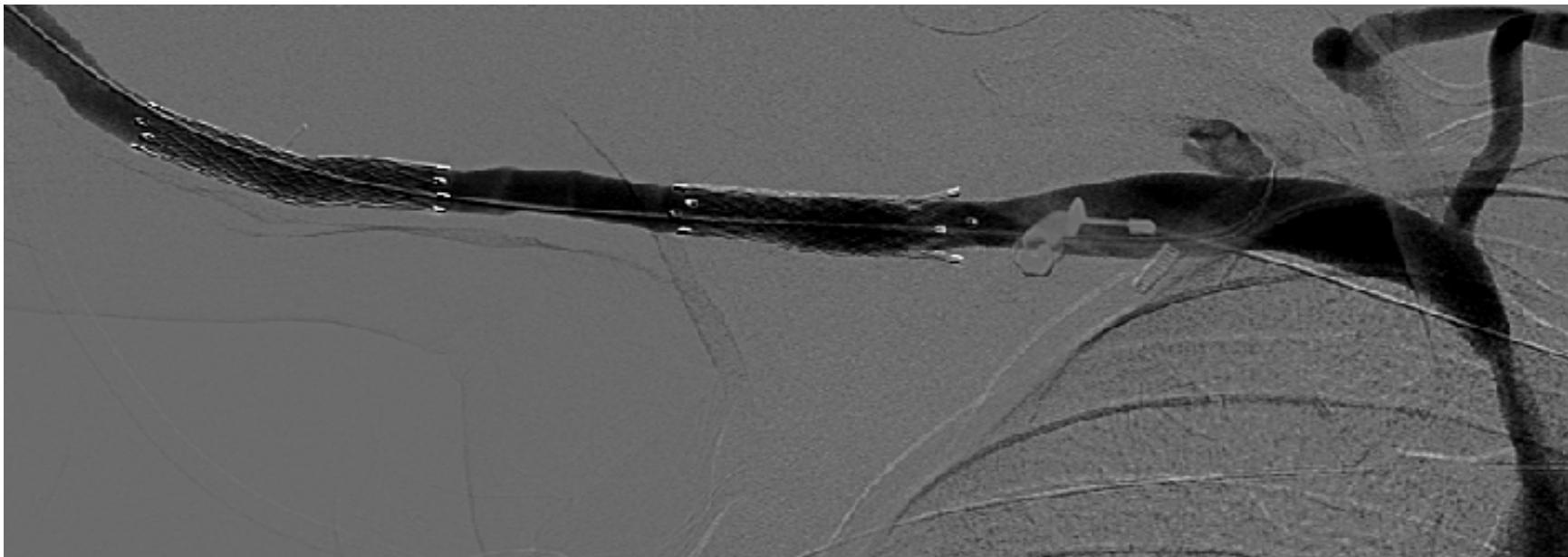
PROBLEME DE COTATION DE L ACTE :

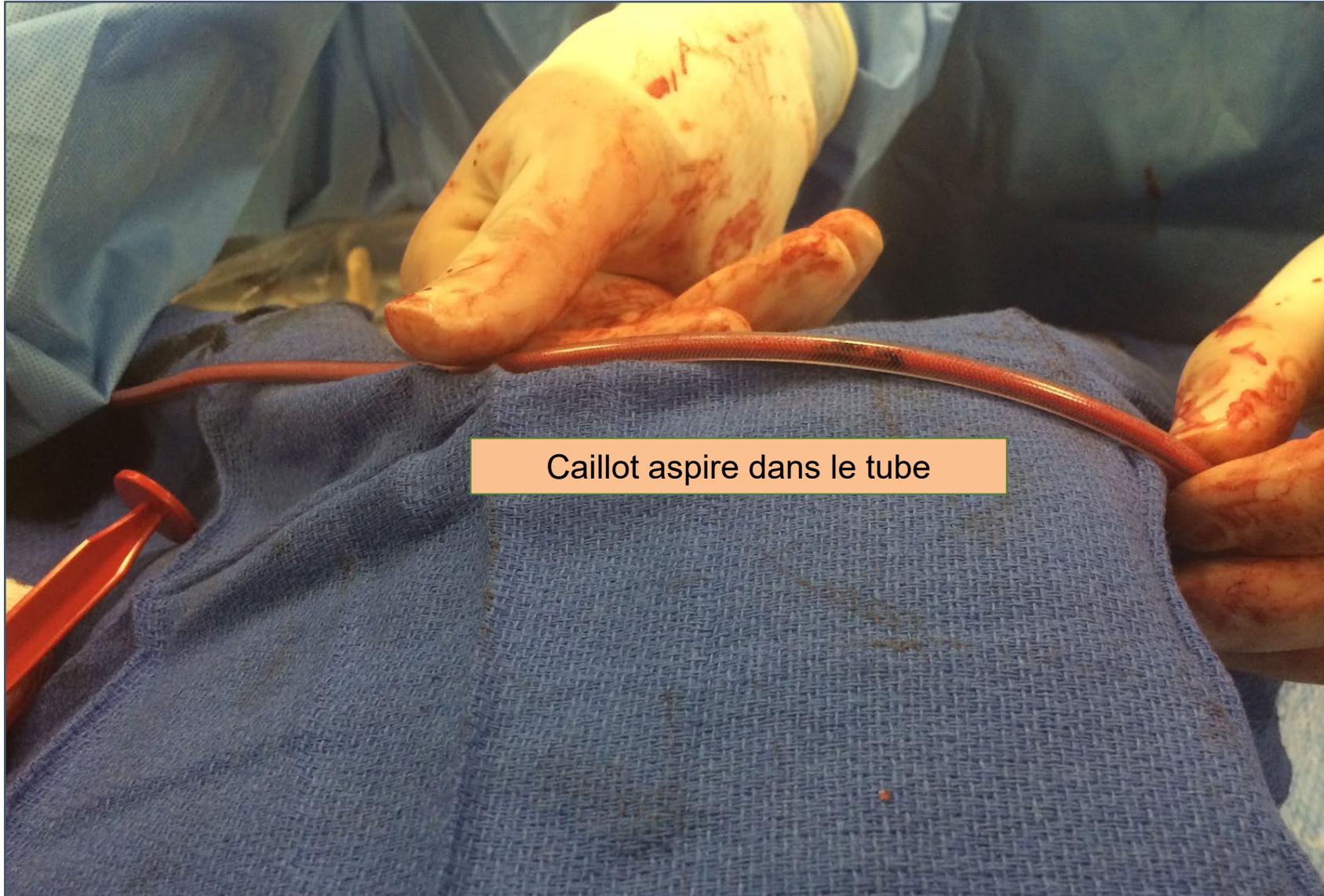
- Séance de dialyse
- Consultation externe
- Transplantation
- Créations et réfections de fistules artério-veineuses
- Acte thérapeutique sur les fistules artério-veineuses

EXEMPLE

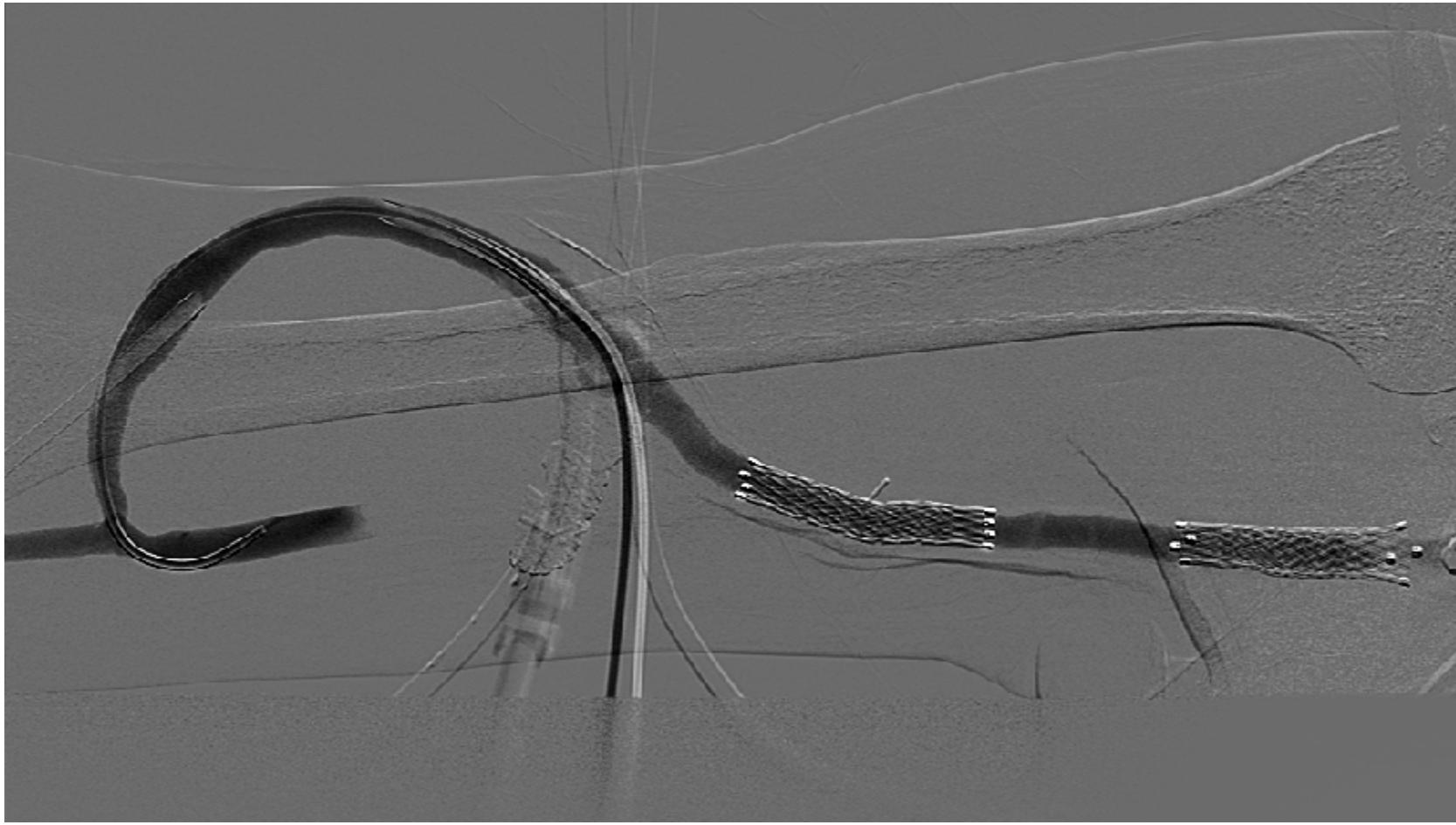
Femme de 72. Thrombose de son anse de dialyse



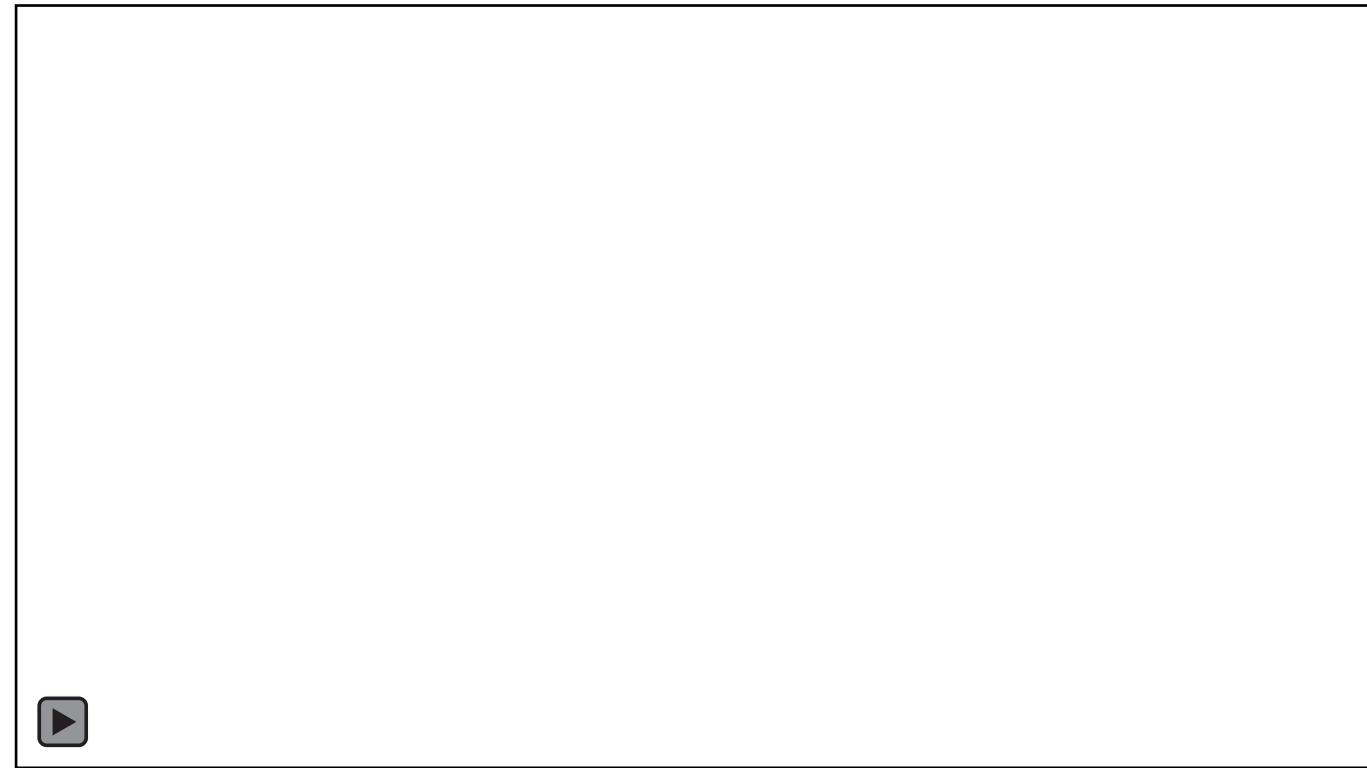




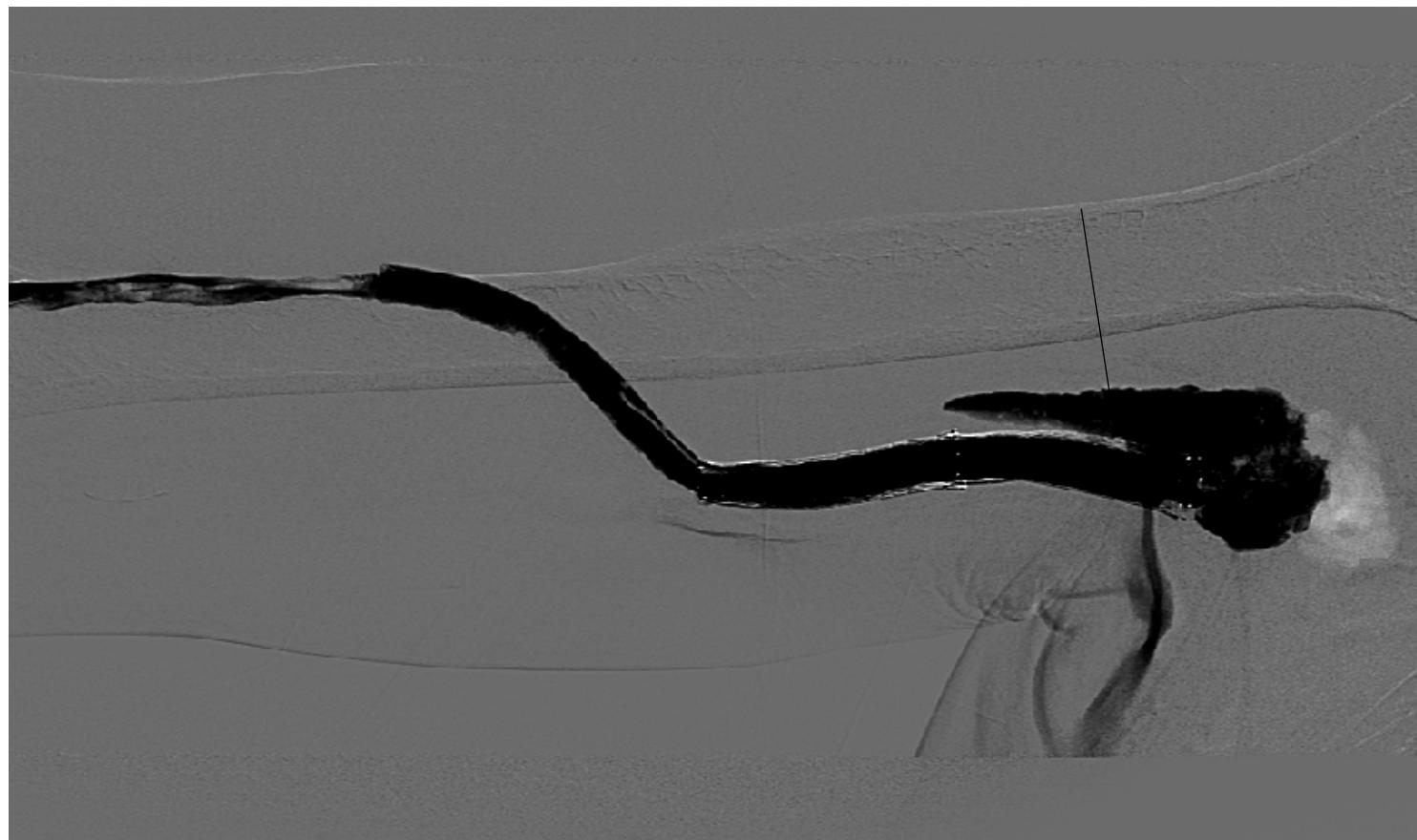
Caillot aspire dans le tube



Contrôle final : Perméabilité sans thrombus résiduel



COMPLICATION



CONCLUSION

- Thrombectomie de fistule dialyse sont efficace; nécessite un parcours patient bien organisé.
- Plusieurs systèmes de thrombectomie à disposition (Comdim).

MERCI POUR VOTRE
ATTENTION

BIBLIOGRAPHIE

- Lee H-W, Allon M. When should a patient receive an arteriovenous graft rather than a fistula? *Semin Dial.* 2013 Feb;26(1):6–10.
- Heye S, Van Kerckhove F, Claes K, Maleux G. Pharmacomechanical thrombectomy with the Castañeda brush catheter in thrombosed hemodialysis grafts and native fistulas. *J Vasc Interv Radiol JVIR.* 2007 Nov;18(11):1383–8.
- Yuo TH, Chaer RA, Dillavou ED, Leers SA, Makaroun MS. Patients started on hemodialysis with tunneled dialysis catheter have similar survival after arteriovenous fistula and arteriovenous graft creation. *J Vasc Surg.* 2015 Dec;62(6):1590–1597.e2.
- Bent CL, Sahni VA, Matson MB. The radiological management of the thrombosed arteriovenous dialysis fistula. *Clin Radiol.* 2011 Jan;66(1):1–12.
- Ascher E, Hingorani A. The Dialysis Outcome and Quality Initiative (DOQI) recommendations. *Semin Vasc Surg.* 2004 Mar;17(1):3–9.
- Oklu R, Ghasemi-Rad M, Irani Z, Brinegar KN, Toner E, Hirsch JA. Aspiration thrombectomy using the penumbra catheter. *J Vasc Interv Radiol JVIR.* 2015 Mar;26(3):454–5.
- Yamada R, Adams J, Guimaraes M, Schönholz C. Advantages to Indigo mechanical thrombectomy for ALI: device and technique. *J Cardiovasc Surg (Torino).* 2015 Jun;56(3):393–400.

- Papanagiotou P, White CJ. Endovascular Reperfusion Strategies for Acute Stroke. *JACC Cardiovasc Interv.* 2016 Feb 22;9(4):307–17.
- Son S, Choi DS, Oh MK, Hong J, Kim S-K, Kang H, et al. Comparison of Solitaire thrombectomy and Penumbra suction thrombectomy in patients with acute ischemic stroke caused by basilar artery occlusion. *J Neurointerventional Surg.* 2016 Jan;8(1):13–8.
- Bisdas T, Stavroulakis K, Beropoulos E, Schwindt A, Stachmann A, Austermann M, et al. Initial Experience With the 6-F and 8-F Indigo Thrombectomy System for Acute Renovisceral Occlusive Events. *J Endovasc Ther Off J Int Soc Endovasc Spec.* 2017 Aug;24(4):604–10.
- Maleux G, De Coster B, Laenen A, Vaninbroukx J, Meijers B, Claes K, et al. Percutaneous rheolytic thrombectomy of thrombosed autogenous dialysis fistulas: technical results, clinical outcome, and factors influencing patency. *J Endovasc Ther Off J Int Soc Endovasc Spec.* 2015 Feb;22(1):80–6.
- Turmel-Rodrigues LA. Declotting a thrombosed Brescia-Cimino fistula by manual catheter-directed aspiration of the thrombus. *Cardiovasc Intervent Radiol.* 2005 Feb;28(1):10–6.