CONTROVERSIES & UPDATES IN VASCULAR SURGERY
JANUARY 22-24 2015
MARRIOTT RIVE GAUCHE & CONFERENCE CENTER PARIS, FRANCE

Clinical Experience with Infected StentGrafts after Elective AAA EVAR Procedure: AURC Registry

X. CHAUFOUR, M. LE GALL, J GALLEY
J. GAUDRIC, Y. GOUEFFIC, E. STEINMETZ
R. HASSEN KHODJA, D. MIDY, P. FEUGIER,
S. MALIKOV, E. ROSSET, A. CARDON
A.U.R.C

Service de Chirurgie Vasculaire
Hôpital Universitaire de Toulouse

Disclosure

Speaker name:

....Pr CHAUFOUR.....

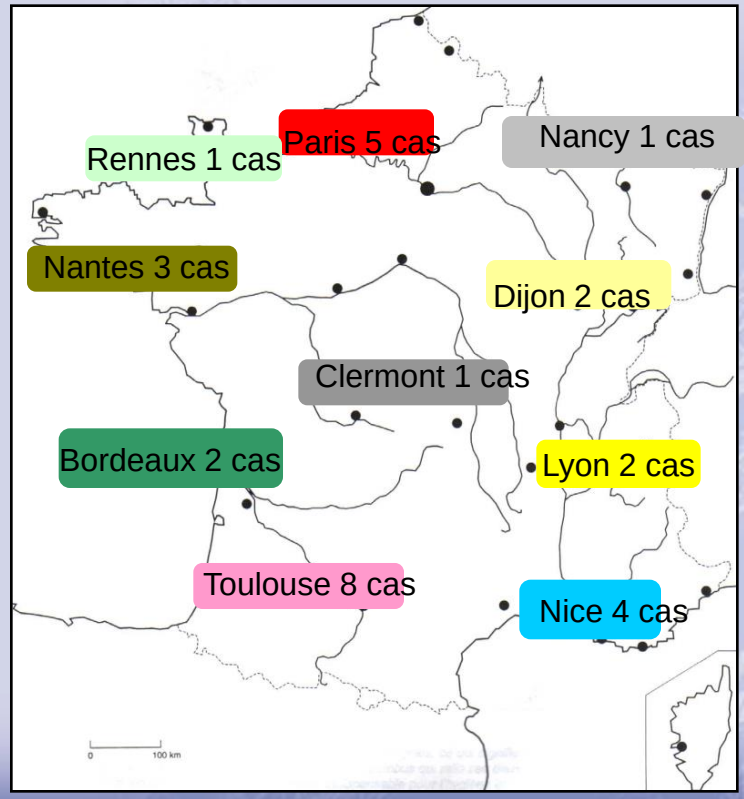
- ☒ I have the following potential conflicts of interest to report:
- ☒ Consulting
- ☐ Employment in industry
- ☐ Shareholder in a healthcare company
- ☐ Owner of a healthcare company
- ☐ Other(s)
- ☐ I do not have any potential conflict of interest

AURC: 10 centers

- Multicentric, retrospective Study
- January 1997 to January 2014

. 29 cases of Infected StentGrafts after elective EVAR AAA procedure

Excluded : EVAR for Symptomatic AAA, Rupture AAA



EVAR procedure

- **Mean Age : 73 (61-84)**
- **ASA 3 : 72,4% (n=21)**
- **Mean Diameter (mm) : 60 (42-93)**
- **Technical Succees : 100% (n=29)**
- **Mean Follow up (month) : 15.3 (1,6-109,6)**

EVAR Device	N / Pourcentage (%)
Procedure	
Operating Room	21 / 72,4
Radiology Suite	8 / 28,6
StentGraft	
Cook Zenith	13 / 44,8
Medtonic : Talent /Aneurx	4 / 13,7
Endurant	
Vascutek Anaconda	7 / 24
Gore Excluder	3 / 10,3
Homemade	2 / 6,9
EVAR type	
Bifurcated	19 / 65,5
Aorto-mono-iliac	10 / 34,5
J 30 complications	3 / 10,3
Local	2 / 6,9
Surgery	0 / 0
Systemic	1/3,4
Secondary Procedures	13 / 44,8
Surgery	8 / 61,5
Endovascular	5 / 38,5

Sepsis

- Delay beetween EVAR procedure / Infected Stentgraft Diagnosis
  - Mean time: 13,8 months (1-115)

- Long Term Antibiotic Treatment

- AAA Diam increase : 7 cases, 24,1%
- Mean Diam AAA (mm) : 67 mm (35-100)
- EVAR Limb Patency : 96,6% (n=28)

CT Studies

- Abscess: 62,1% (n=18)
- Aorto-enteric Fistula: 31% (n=9)

Sepsis

Clinic	Nombre / Pourcentage (%)
Fever	23 / 79,3
Abdominal Pain	15 / 51,7
Bleeding	7 / 24,1

Données bactériologiques	Nombre / Pourcentage (%)
Hémocultures +	15 / 51,7
Staphylocoque	5 / 17,2
Streptocoque	5 / 17,2
Bacteroides	3 / 10,3
Salmonelle	1 / 3,4
Escherichia Coli	1 / 3,4

EVAR Explantation

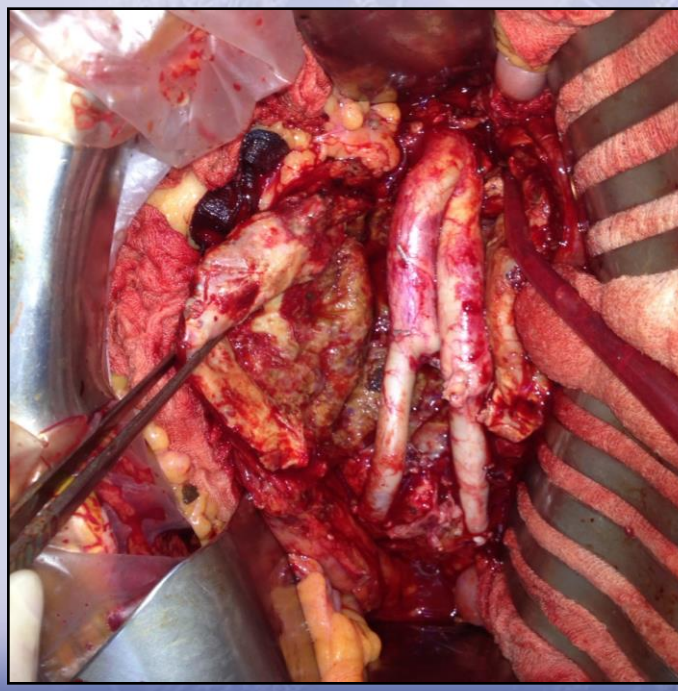
- Mean time explantation : 15 months (2-118)
- Technical success: 100% (n=29), no death

Surgery	N / (%)
Revascularisation	
In situ	24 / 82,8
Extra-anatomic	5 / 17,2
Bypass Material	
Arterial allograft	20 / 69
Silver graft	5 / 17,2
Polyester Graft	3 / 10,3
Superficial femoral Vein	1 / 3,4
Enteric suture	6 / 20,6
Renal artery bypass	1 / 3,4

EVAR Explantation

- In situ arterial cryopreserved Allograft

- Extra-anatomic axillo-bifémoral Bypass



EVAR Explantation

Prélèvements	N / (%)
Stérile	9 / 31
Staphylocoque	5 / 17,2
Streptocoque	3 / 10,3
Bacteroides	5 / 17,2
Salmonelle	1 / 3,4
Echerichia Coli	3 / 10,3
Entérocoque	2 / 6,8
Levures Candida	1 / 3,4
≥ 2 souches	7 / 24,1

EVAR Explantation Results

- 30 Days Mortality: 24,1% (n=7)
- Hospital Mortality: 31% (n=9)

- Temporary Dialysis : 10,3% (n=3)
- Reintervention rate: 31% (n=9)
  - Surgery : 8 / 27,6
  - Endovascular : 1 / 3,4

- Mean ICU (days): 5 (1-56)
- Mean Hospitalisation(days) : 17,5 (6-123)

EVAR Explantation Results

- Mean follow up: 10,3 months (1-75)
- 2 deaths no related to vascular procedure
- 3 Reinterventions (11,5%)
  - Axillo bifemoral bypass thrombectomy M9
  - Allograft limb rupture M2
  - Allograft-enteric fistula M35

Conclusions

- Strict asepsis during EVAR or during secondary procedures

- Stentgraft follow up mandatory
  - 20,6 % Aorto-enteric Fistula
  - 24,1 % Imcrease AAA diameter

- Best Treatment:

- StentGraft Explantation with Antibiotic
  - In situ Revascularisation
  - Arterial allograft

Conclusions

- Operating Strategy need to be well defined according to the StentGrafts Devices Specificities
- Mortality after Stentgraft Explantation is similar to infected vascular graft after AAA tr.