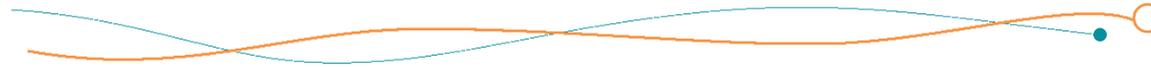




Traitement chirurgical de la recoarctation



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Introduction

- La recoarctation survient chez 10 à 20 % des enfants opérés en période néonatale selon les publications
- Les facteurs de risque sont :
 - Opération très tôt dans la vie
 - Hypotrophie
 - Hypoplasie sévère et longue de l'arche transverse et de l'isthme
 - Hypoplasie proximale au niveau du TABC
 - Maladie de la paroi artérielle (Williams Beuren)
 - Coarctation résiduelle d'emblée
 - Problèmes techniques
- Excès de tension anastomotique
- Résection non complète du tissu ductal
- Insuffisance du patch de la sous clavière lors d'un Waldhausen

Traitement de la resténose

Angioplastie par voie percutanée artérielle fémorale

Dilatation sonde ballon

Dilatation + Stent

Risques:

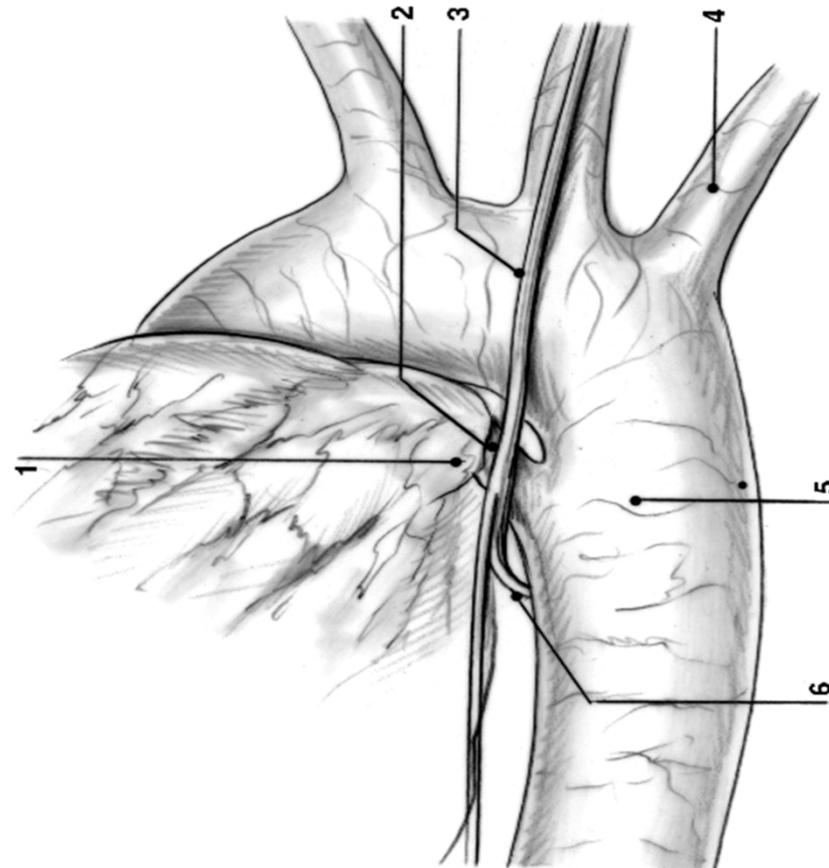
Thrombose A.fémorale chez le
nourrisson < 1 an

Dissection aortique



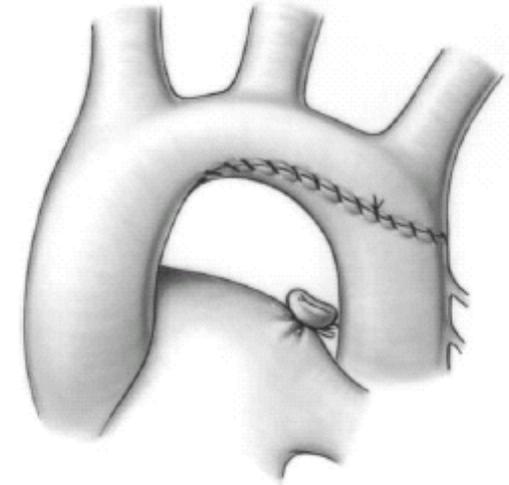
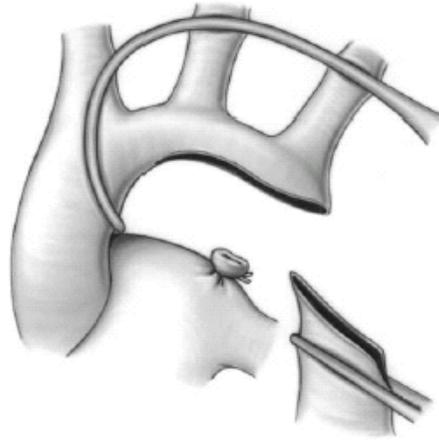
Risques chirurgicaux

- Symphyse pulmonaire
- Risque récurrentiel et X
- Collecteur lymphatique
- Risque hémorragique
- Paraplégie (ligature intercostales préalables)

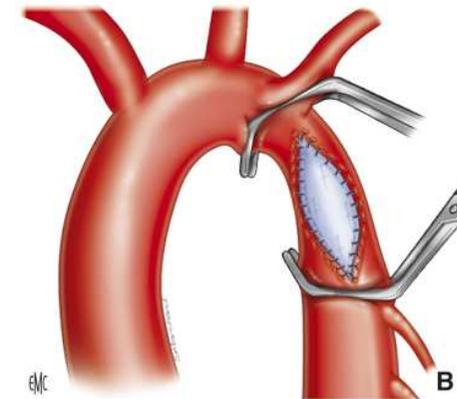
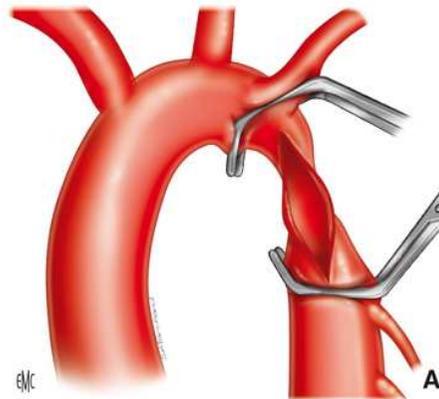


Techniques chirurgicales I

- Directe

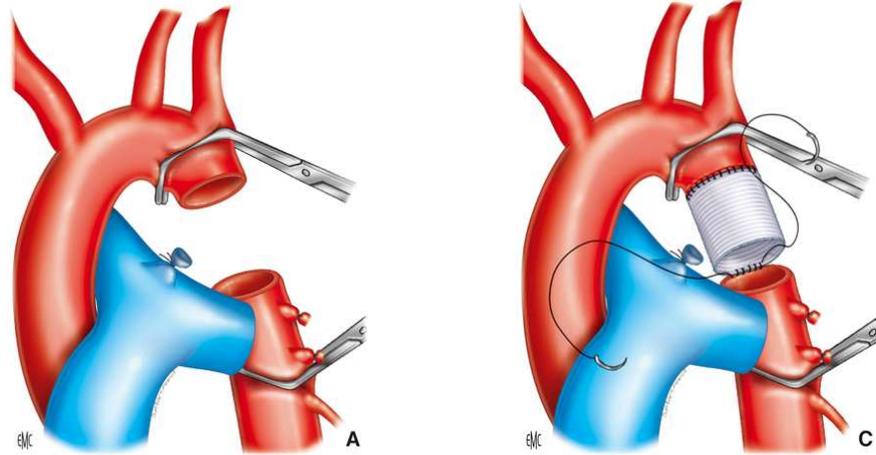


- Patch

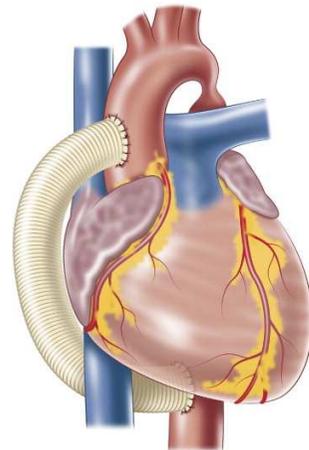


Techniques chirurgicales II

- Tube anatomique



- Tube extra-anatomique



Stratégies opératoires

A. Voie d'abord

1. Thoracotomie postéro latérale gauche redux

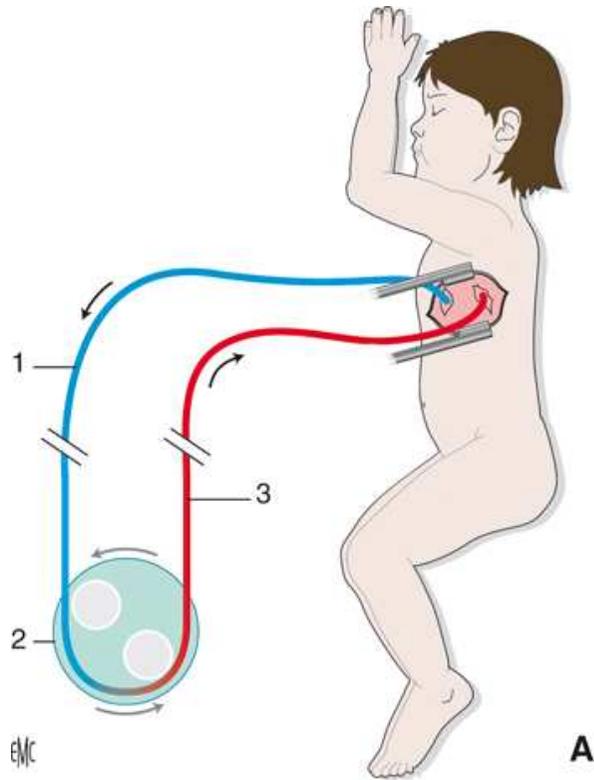
- Si lésion distale (après CPG)
- Si pas de lésion cardiaque à corriger

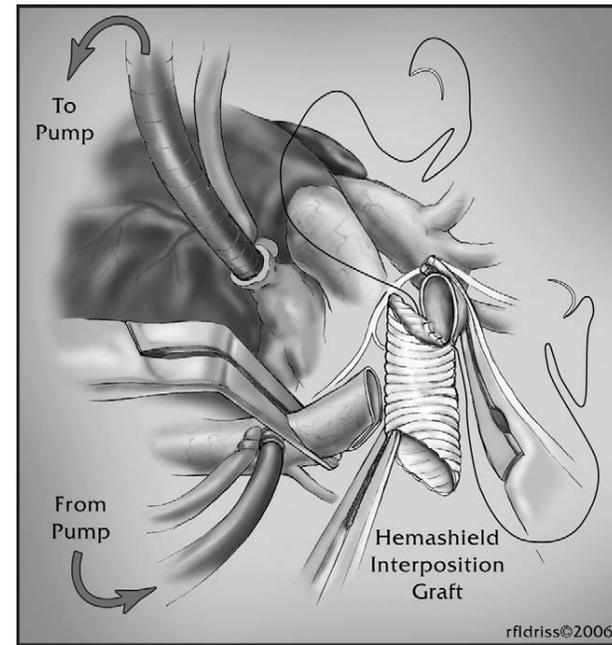
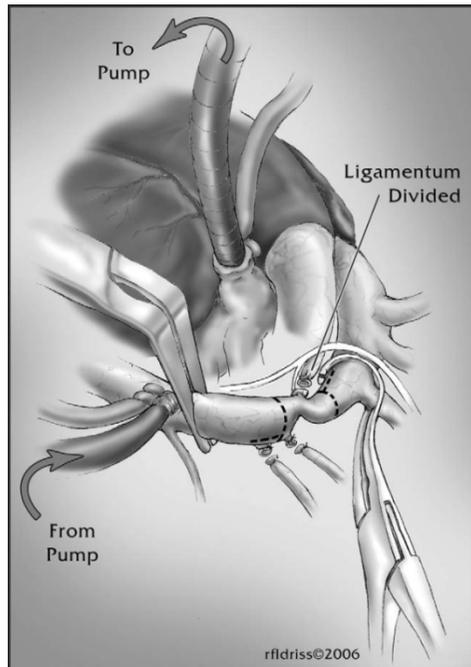
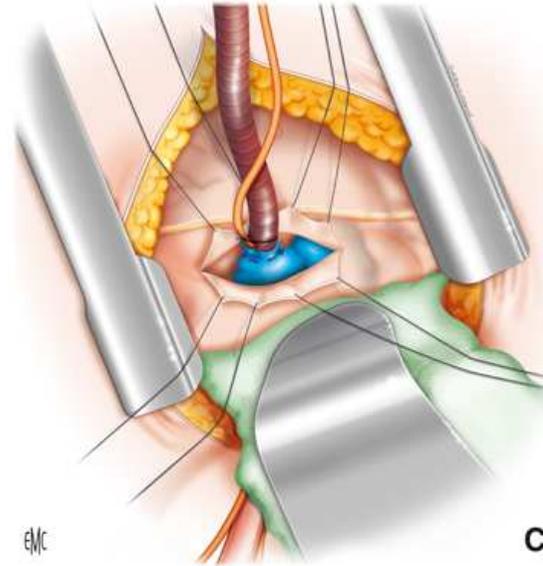
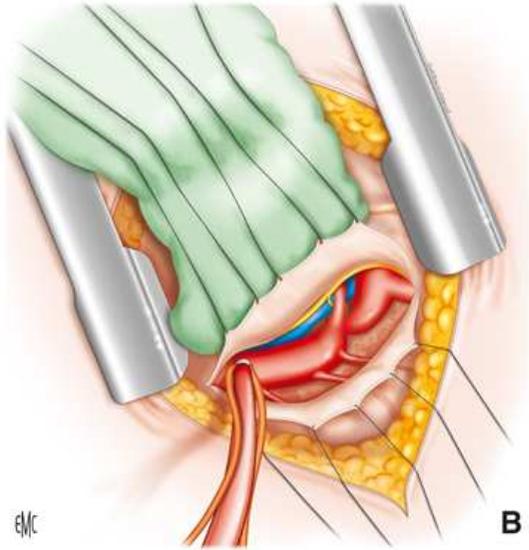
2. Sternotomie médiane

B. CEC

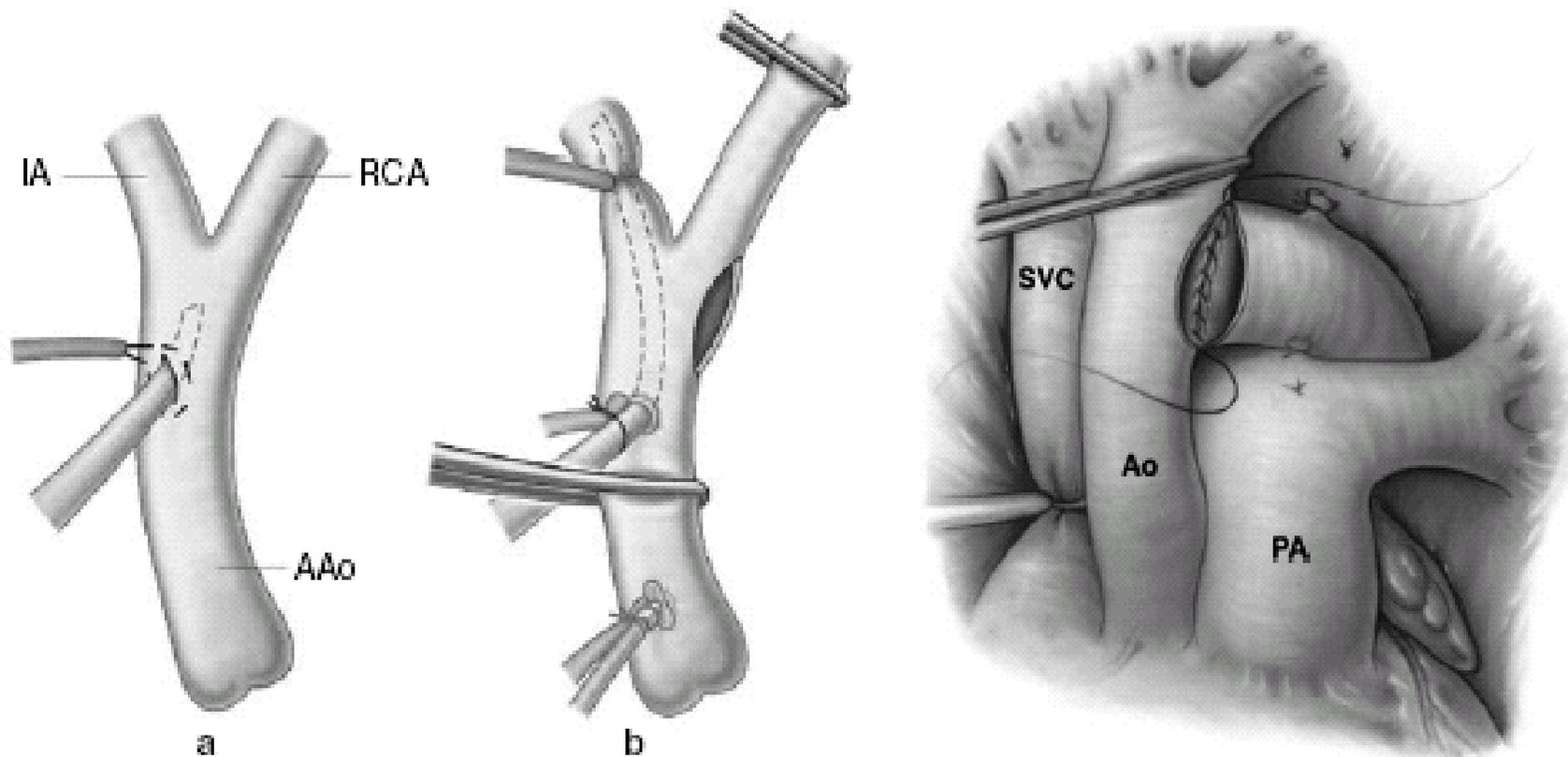
- Si risque de paraplégie ((0,41%) absence de collatérales, clampage long, formes adultes)
- Si risque de saignement

Coarctation par thoracotomie postéro latérale avec CEC

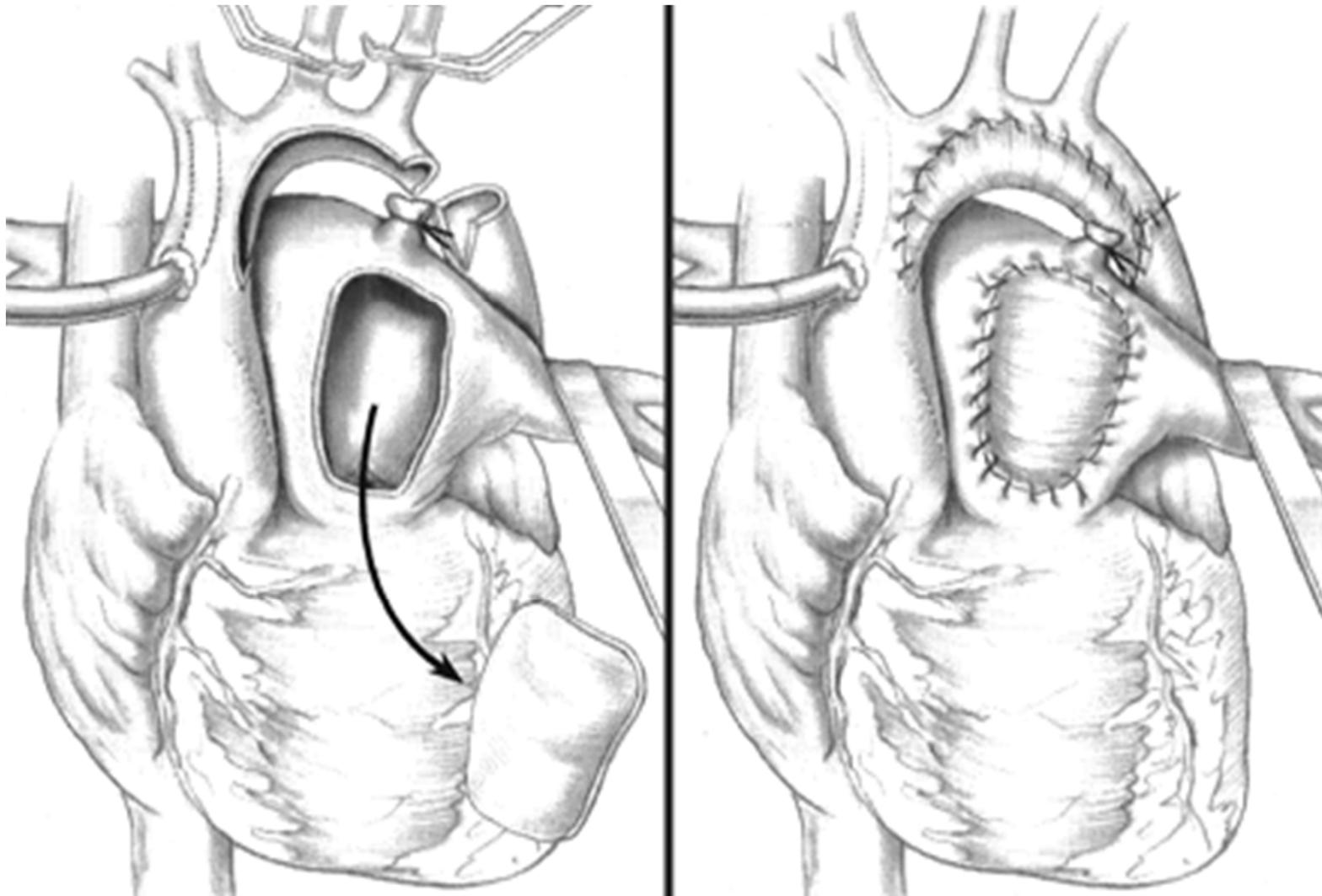




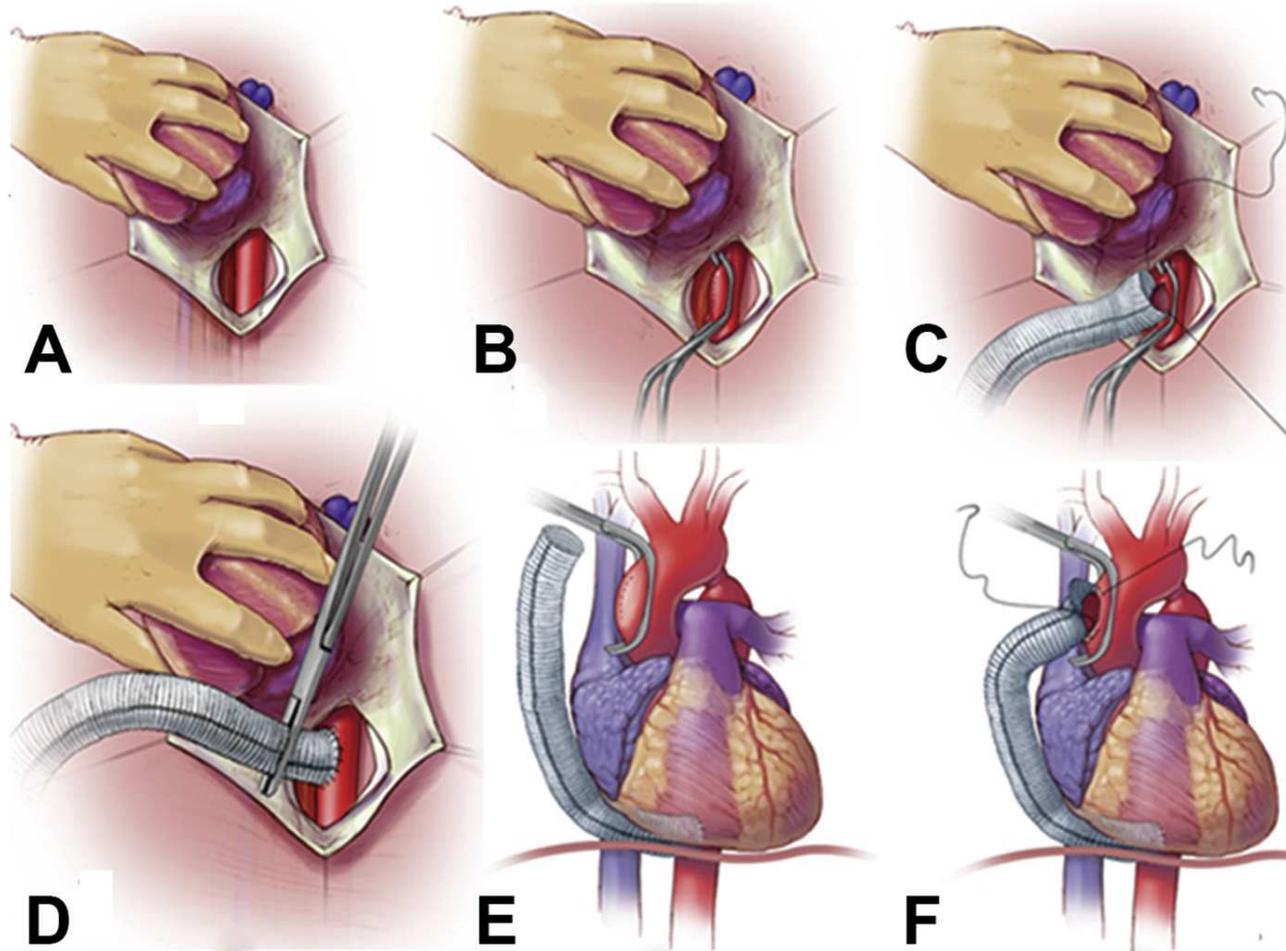
Coarctation par stérnotomie sous CEC



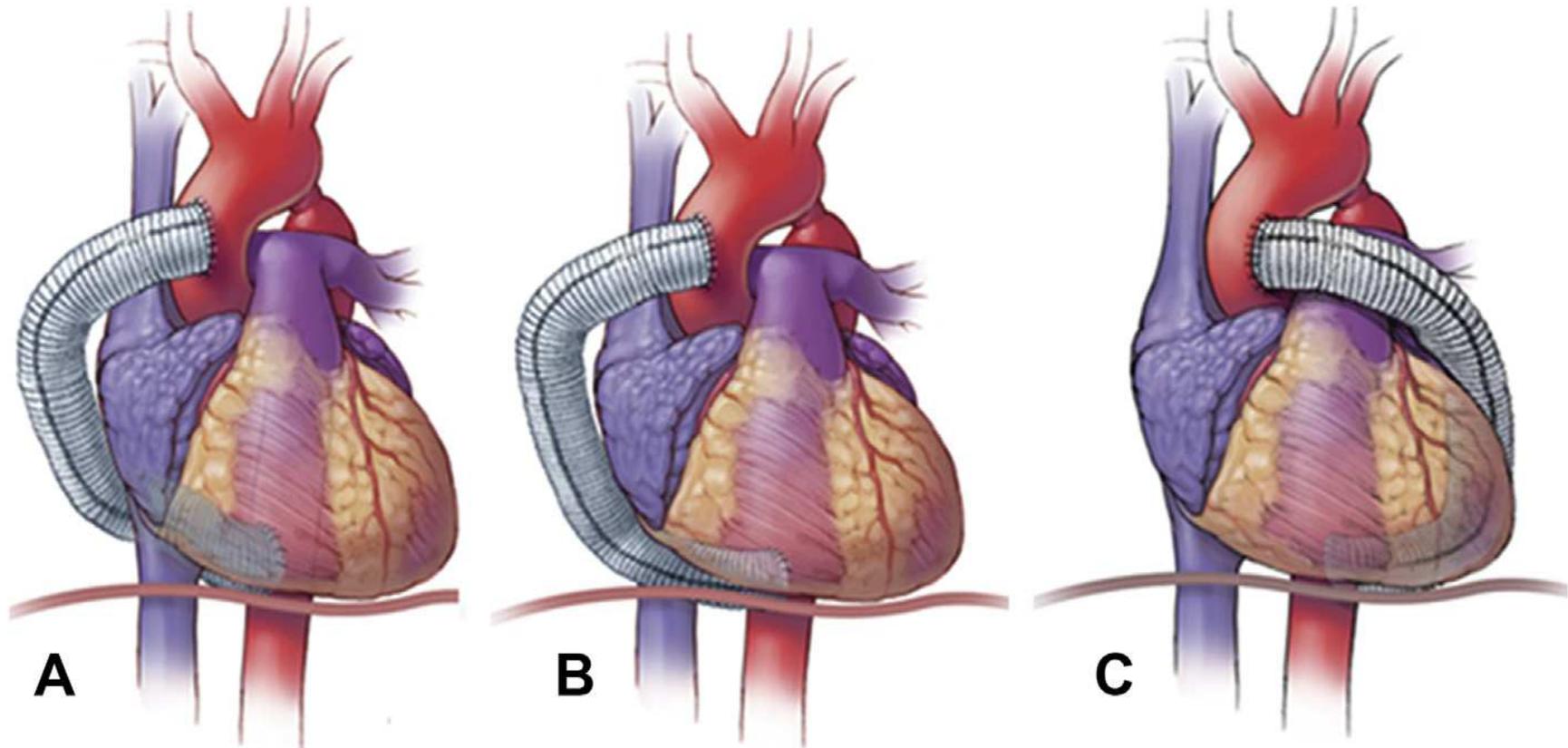
Sternotomie, CEC, patch



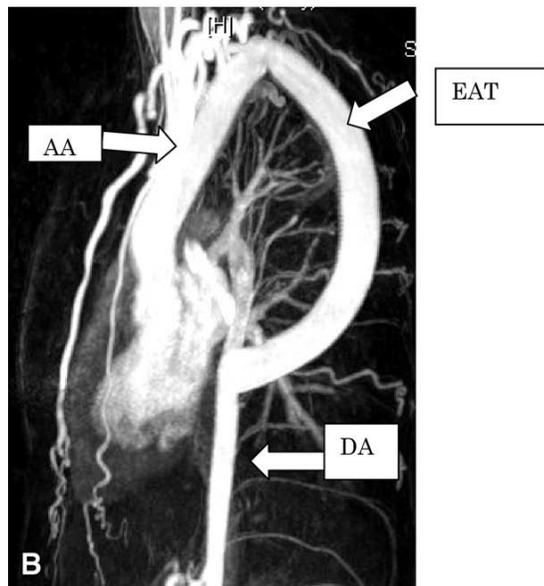
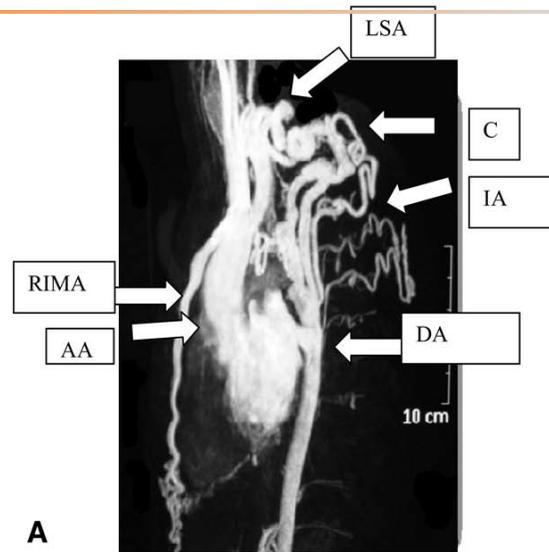
Pontage extra anatomique par sternotomie avec ou sans CEC



Pontage extra anatomique



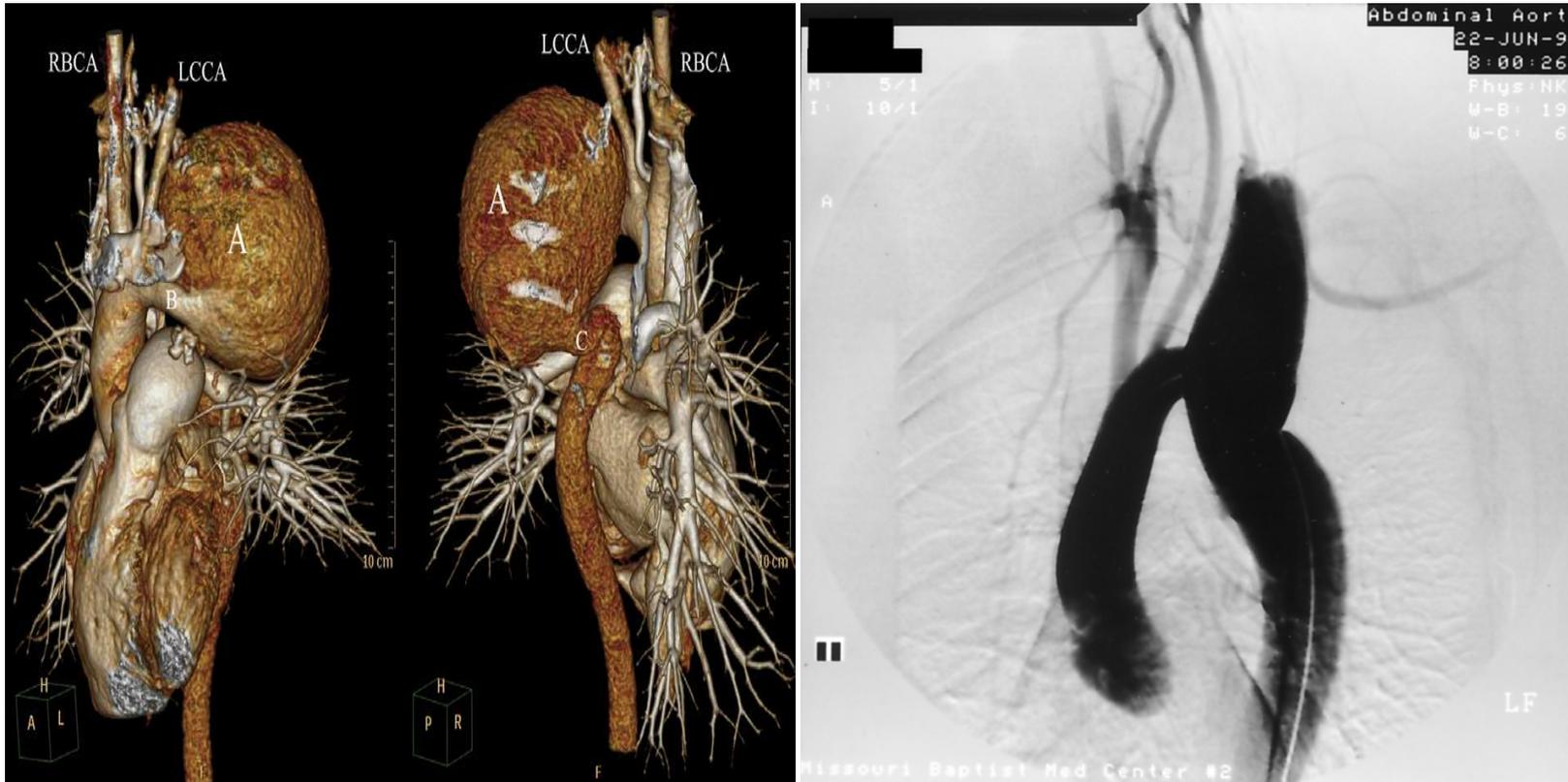
Congenital native interruption of aortic arch in an adult: Extra-anatomic approach by right-side thoracotomy



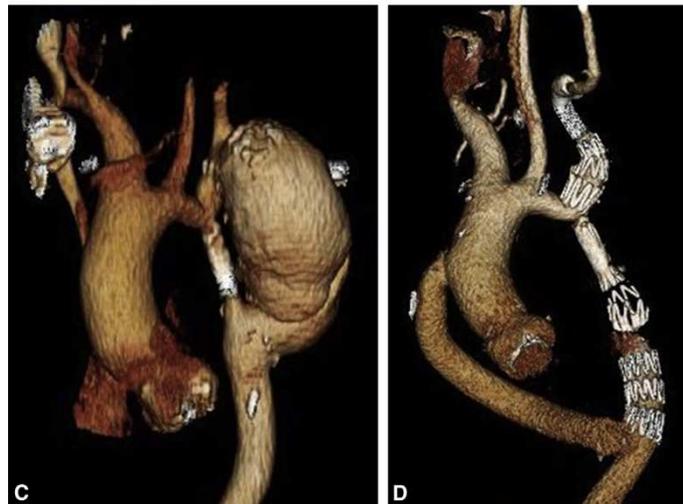
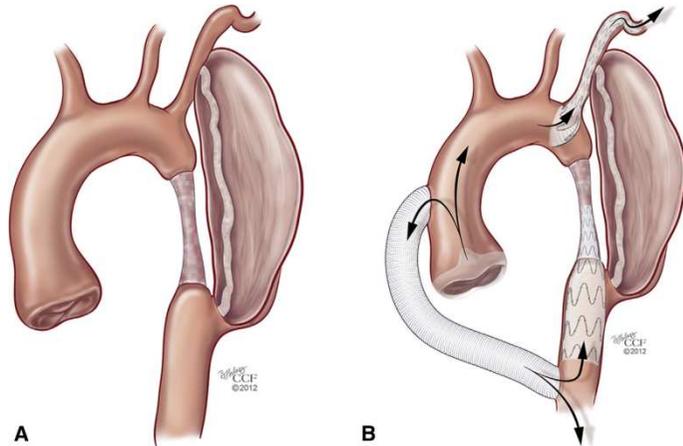
- Avantages:
 - Thoracotomie droite (contourner les problèmes)
 - Pas de CEC
- Inconvénients
 - Prothèse (pas de croissance)

Henaine et al. J Vasc Surg 2010;51:1525-7

Recoarctations et anévrismes



Hybride



Predictors of Aneurysmal Formation After Surgical Correction of Aortic Coarctation

Yskert von Kodolitsch, MD,* Muhammet A. Aydin, MD,* Dietmar H. Koschyk, MD,* Roger Loose, MD,§
Ilka Schalwat, MD,* Matthias Karck, MD,‡ Jochen Cremer, MD,§ Axel Haverich, MD,‡
Jürgen Berger, PhD,† Thomas Meinertz, MD,* Christoph A. Nienaber, MD, FACC*

Hamburg, Hannover and Kiel, Germany

-
- OBJECTIVES** We sought to identify the predictors of aneurysmal formation after surgical correction of aortic coarctation.
- BACKGROUND** In 9% of patients, aneurysms develop late after corrective surgery of coarctation of the aorta, with a 36% mortality rate if left untreated. However, the predictors of postsurgical aneurysmal formation are unknown.
- METHODS** Of 25 aortic aneurysms requiring corrective surgery 152 ± 78 months after the initial coarctation repair, 8 were located in the ascending aorta (type A) and 17 at the site of previous repair (local type). Seventy-four patients without progression of the aortic diameter within 189 ± 71 months after coarctation repair were used for categorical data analysis in an attempt to identify the predictors of postsurgical aneurysmal formation.
- RESULTS** Advanced age at coarctation repair ($p = 0.004$) and patch graft technique ($p < 0.0005$) independently predicted local aneurysmal formation. Type A aneurysm was univariately associated with the presence of a bicuspid aortic valve ($p = 0.02$), advanced age at coarctation repair ($p = 0.044$) and a high preoperative peak systolic pressure gradient of 74 ± 21 mm Hg ($p = 0.041$). Conversely, multivariate analysis confirmed only the presence of a bicuspid aortic valve ($p = 0.015$) as an independent predictor of type A aneurysm. Receiver operating characteristic curve analysis revealed that 72% of patients with a postsurgical aneurysm had an operation at age 13.5 years or more, whereas 69% with no postsurgical aneurysm had an operation at a younger age.
- CONCLUSIONS** Use of the patch graft technique and late correction of coarctation can predict aneurysmal formation at the site of coarctation repair, whereas patients with a bicuspid aortic valve may be at risk for an aneurysm developing in the ascending aorta, particularly after late repair of aortic coarctation with high preoperative pressure gradients. (J Am Coll Cardiol 2002;39:617-24) © 2002 by the American College of Cardiology
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- Anévrisme au niveau de la zone de coarctation: patch
- Anévrisme de l'aorte ascendante: bicuspidie et HTA



A RETENIR

- Plusieurs techniques et stratégies
- Traitement par cathétérisme interventionnel en première intention
- Surveillance à long terme

REFERENCES

Pour en savoir plus:

F. Roubertie, E. Le Bret, E. Belli, R. Roussin, M. Ly, N. Bensari, A. Serraf. Coarctations aortiques et hypoplasies de l'arche. EMC - Techniques chirurgicales - Thorax 2010:1-13 [Article 42-761].



**Merci pour ceux qui sont
restés jusqu'à la fin et bon
retour !**

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