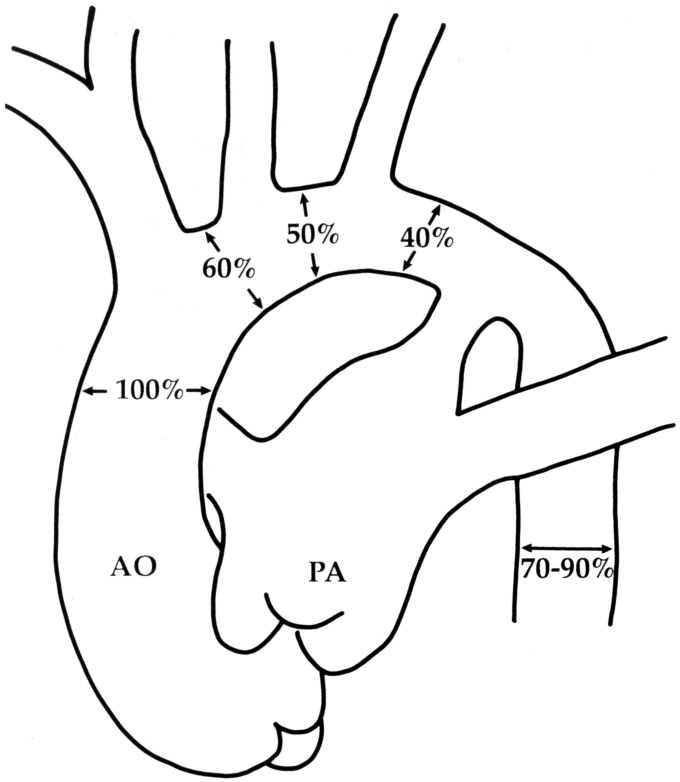
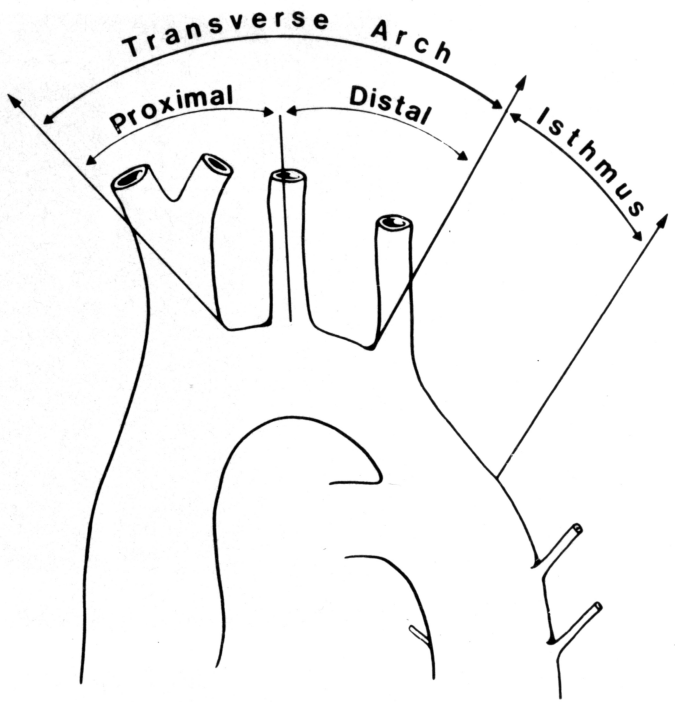
La coarctation; non…les coarctations !

- Formes du nouveau-né:
  - Isolée
    - Hypoplasie de l'arche ?
  - Associée
    - Syndrome de coarctation
    - TGVx
    - Sd Shone
    - VU…
- Forme du grand enfant…adulte

Rappel(s) anatomique

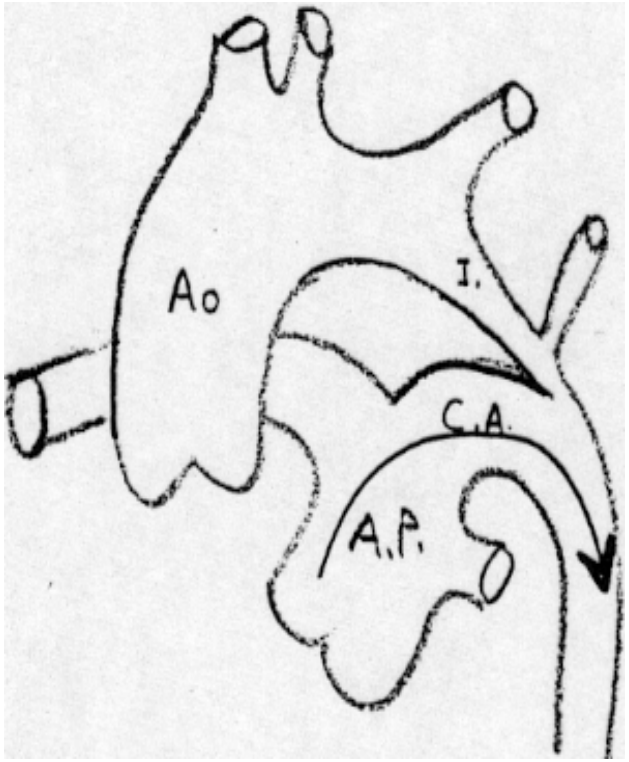
Arche aortique = 3 segments





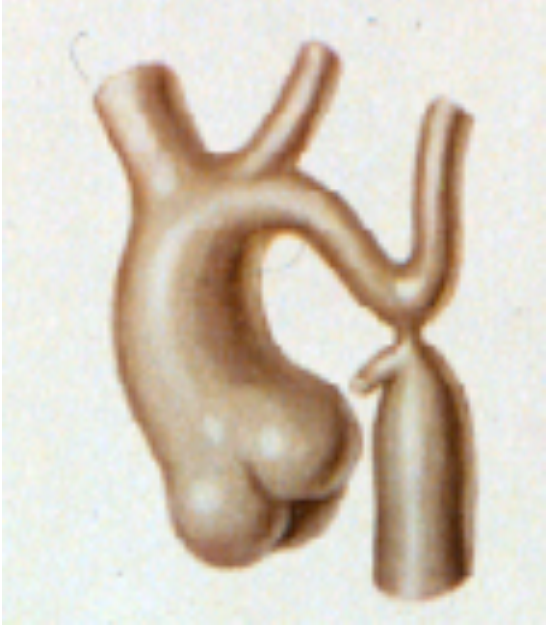
Coarctation néonatale

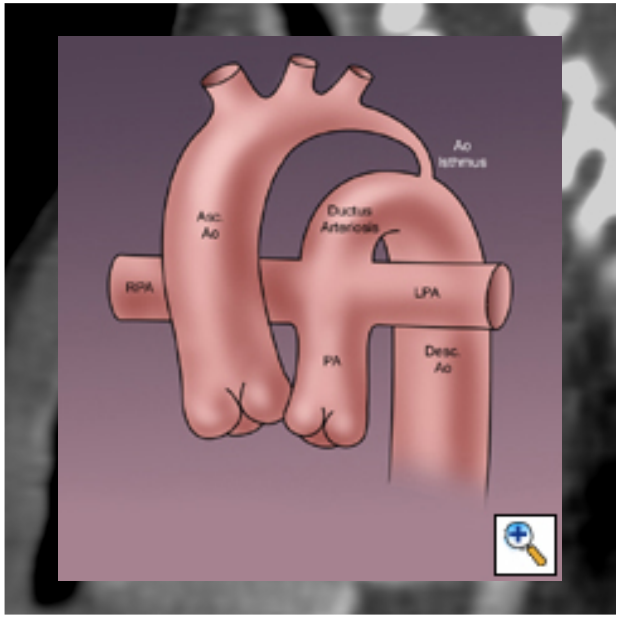
- CARDIOPATHIE DUCTODEPENDANTE
- **obstacles à l'éjection du coeur gauche (inter. de l'arche aortique, RA serré)**
- **insuffisance cardiaque sévère ou collapsus**
- **Prostine VR pour hémodynamique**

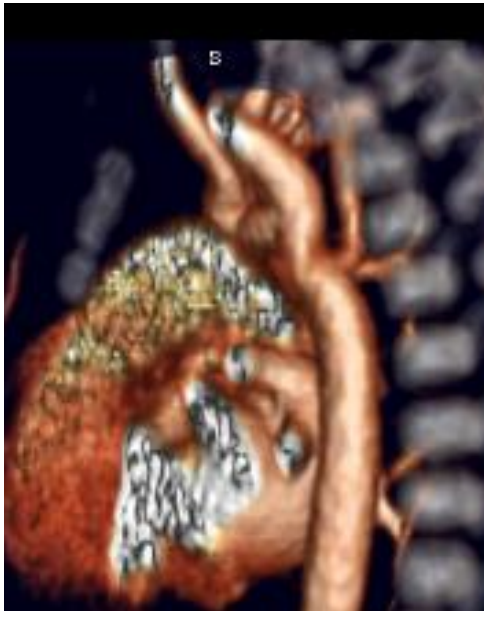


Coarctation néo-natale isolée (?) thoraco

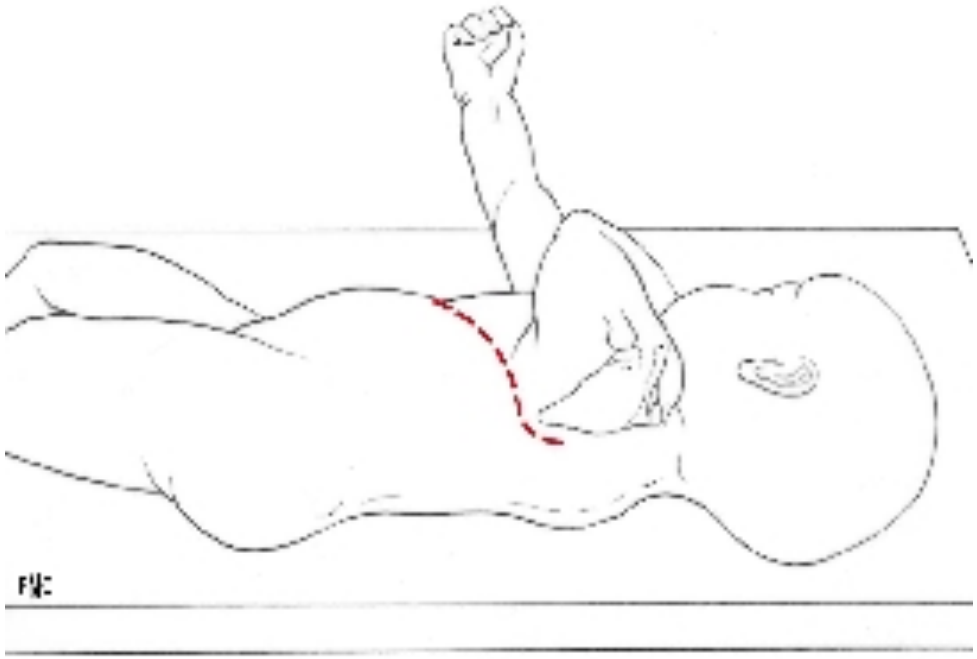
- Coarctation +/- hypoplasie sus-jacente ?
- Pression radiale droite (anomalie arc aortique ?)
- NIRS partout; hypothermie?
- Crosse gauche?; vraiment isolée? Fonction VG?

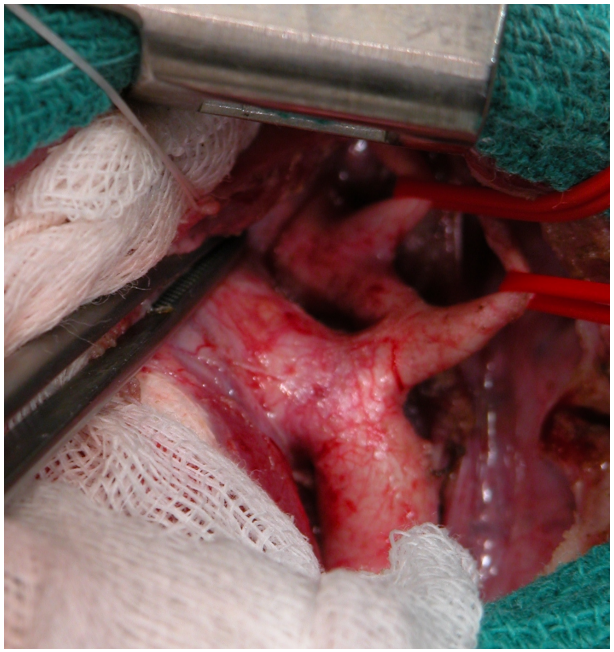


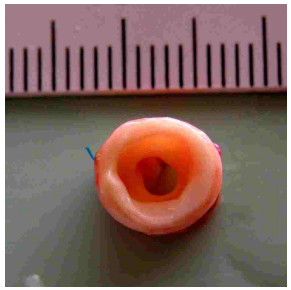




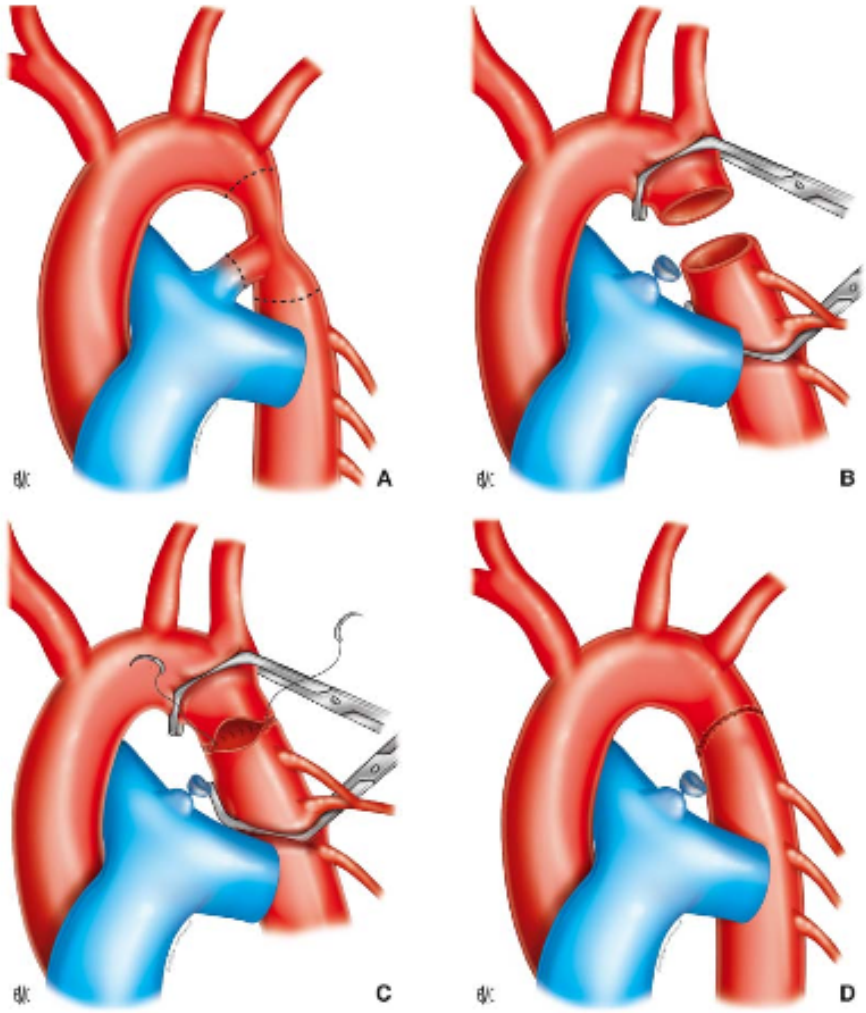
Coarctation néo-natale







Coarctation Nné + crosse “normale” thoracotomie



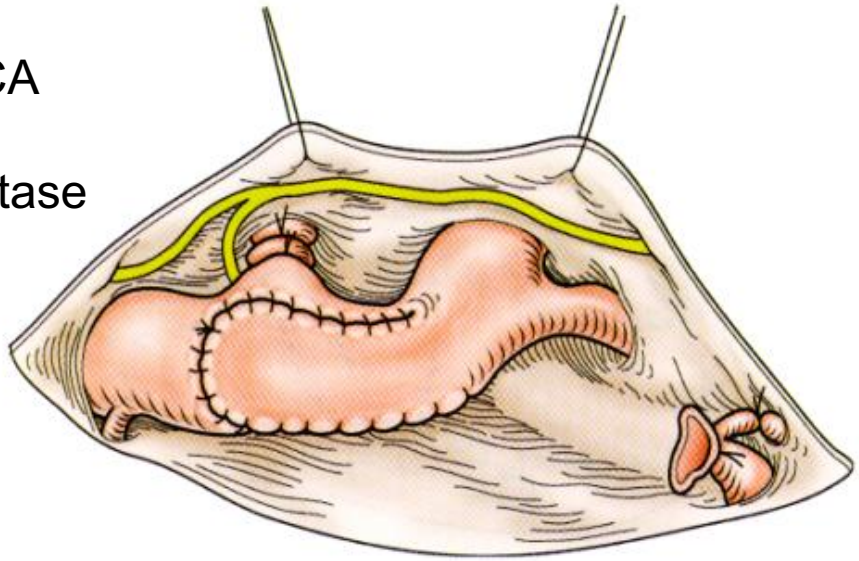
- **Technique de Crafoord**
- **Modification brutale ligature CA**
- **Saignement**
- **Déclampage !**

Coarctation Nné + crosse “normale”

- **Plastie d’élargissement avec SCG (Waldhausen)**

Pas de section CA

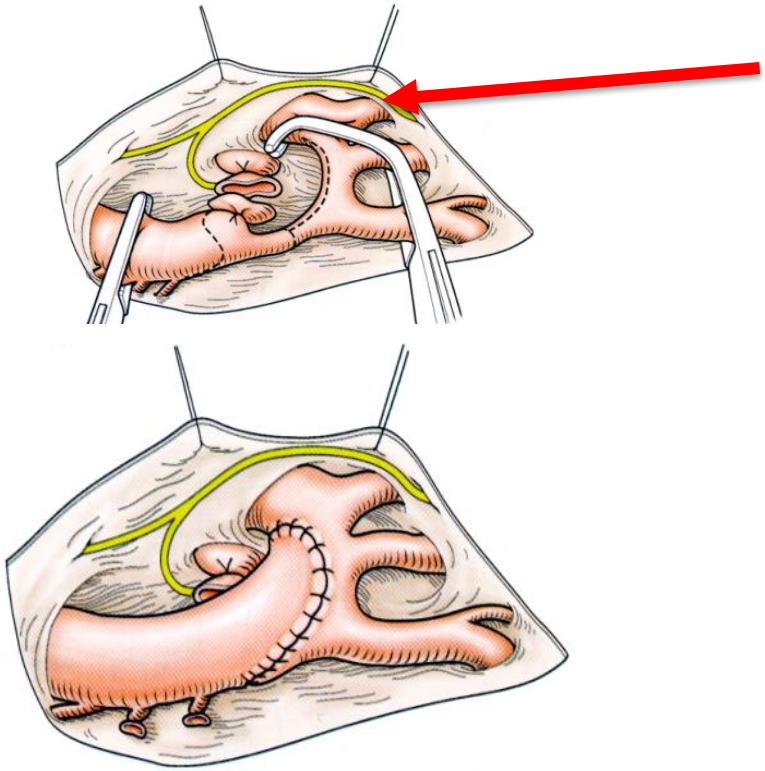
Meilleure hémostase

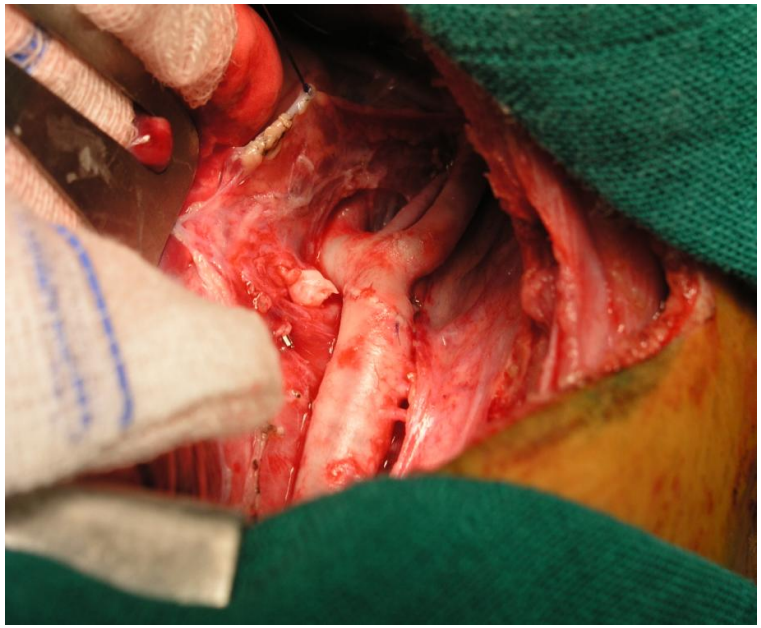


Laisse le tissu ductal en place

Coarctation Nné + hypoplasie segment II thoracotomie

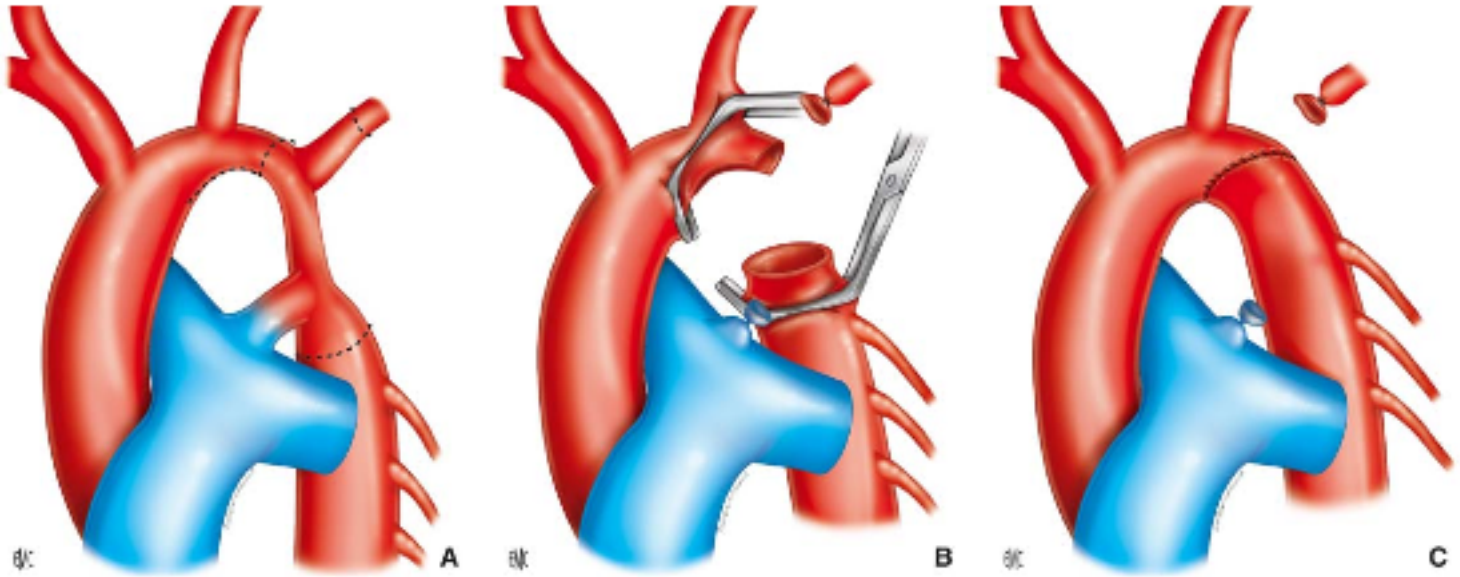
- **Résection anastomose étendue (extended Crafoord)**





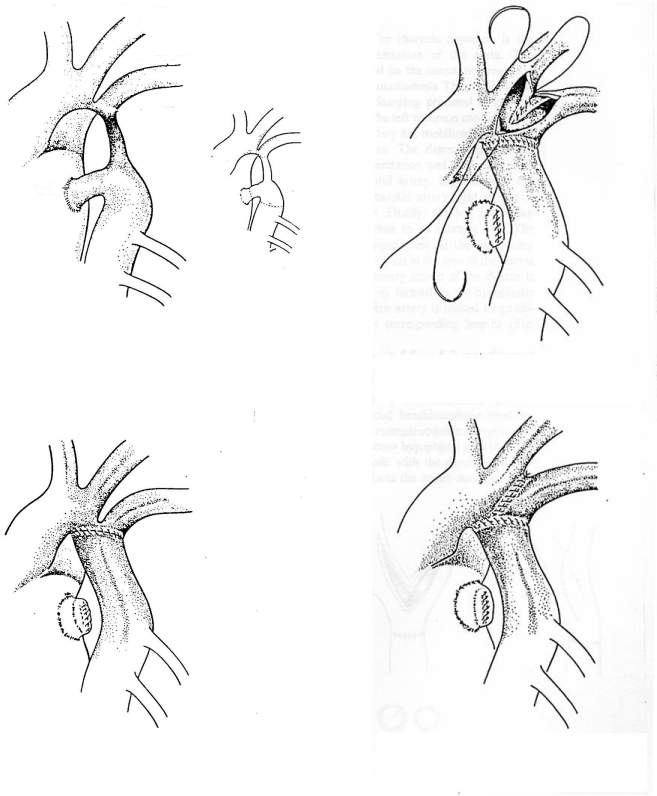
Coarctation Nné + hypoplasie segment II

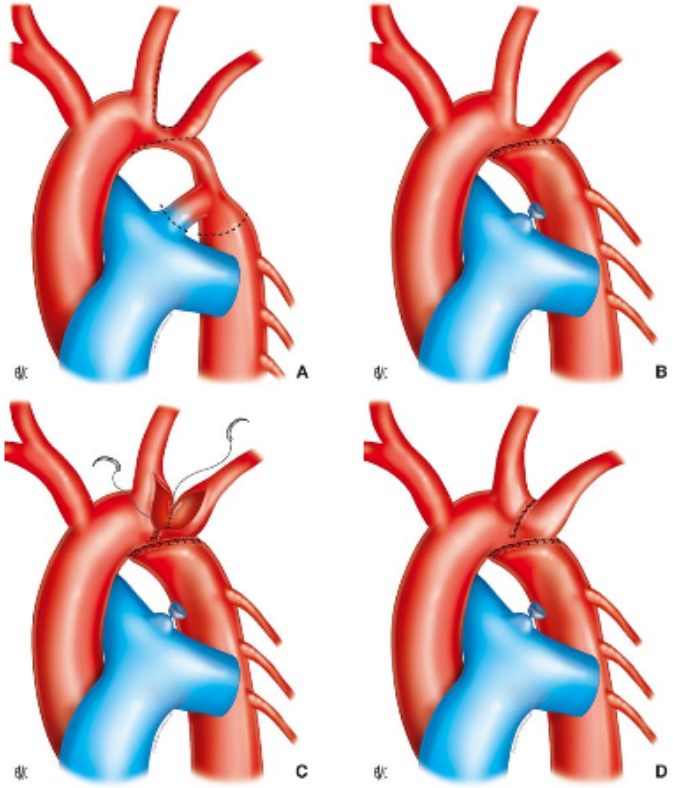
- **Résection anastomose étendue +/- sacrifice SCG**



Coarctation Nné + hypoplasie segment II

- **Amato**





Coarctation : complications précoces

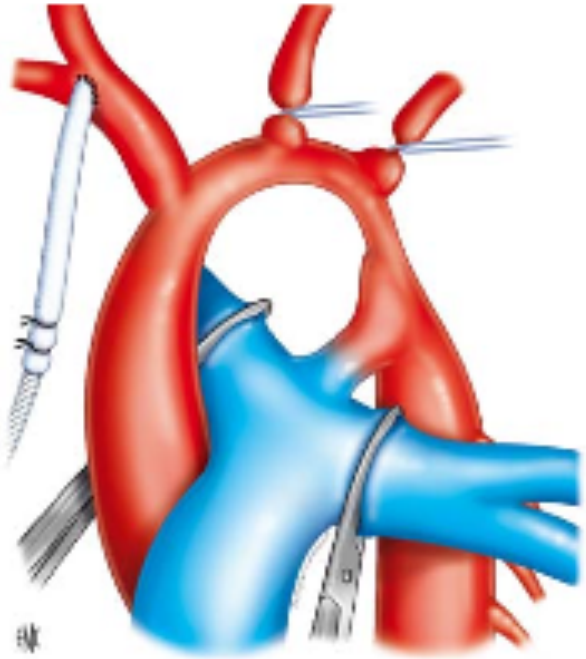
- Saignement
- HTA paroxystique
- **Paraplégie (risque ? Flux sous claviers? Prévention?)**
- Iléus réflexe
- Chylothorax
- Paralysie récurrentielle

Coarctation : complication tardive

- **Re-coarctation ++++ : traitement endo-vasculaire**

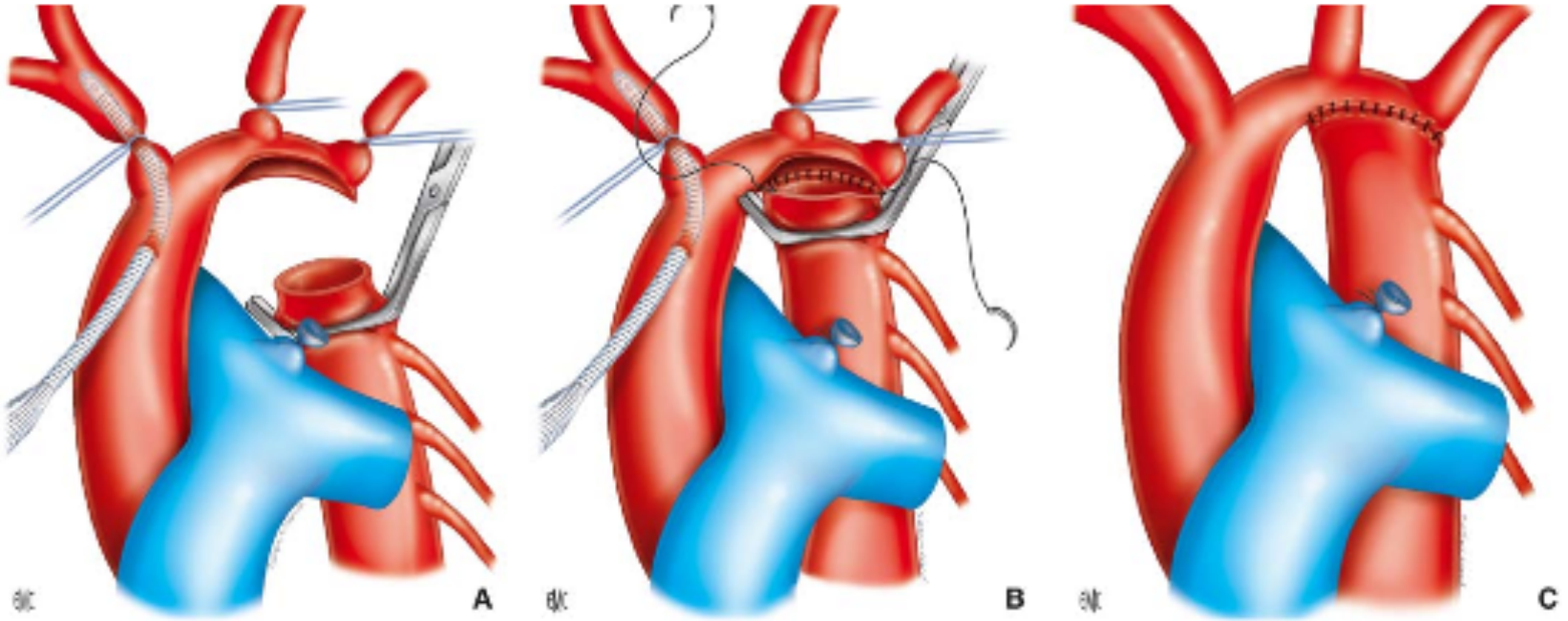
Coarctation Nné : Sternotomie + CEC

- **Rares hypoplasie segment I**
- **Naissance commune TABC et CPG**
- **Lésions associées: syndrome de coarctation…**
- **Re-coarctation complexe**



- **Perfusion cérébrale**
- **Protection médullaire**
- **Hypothermie**
- **Protection myocardique**

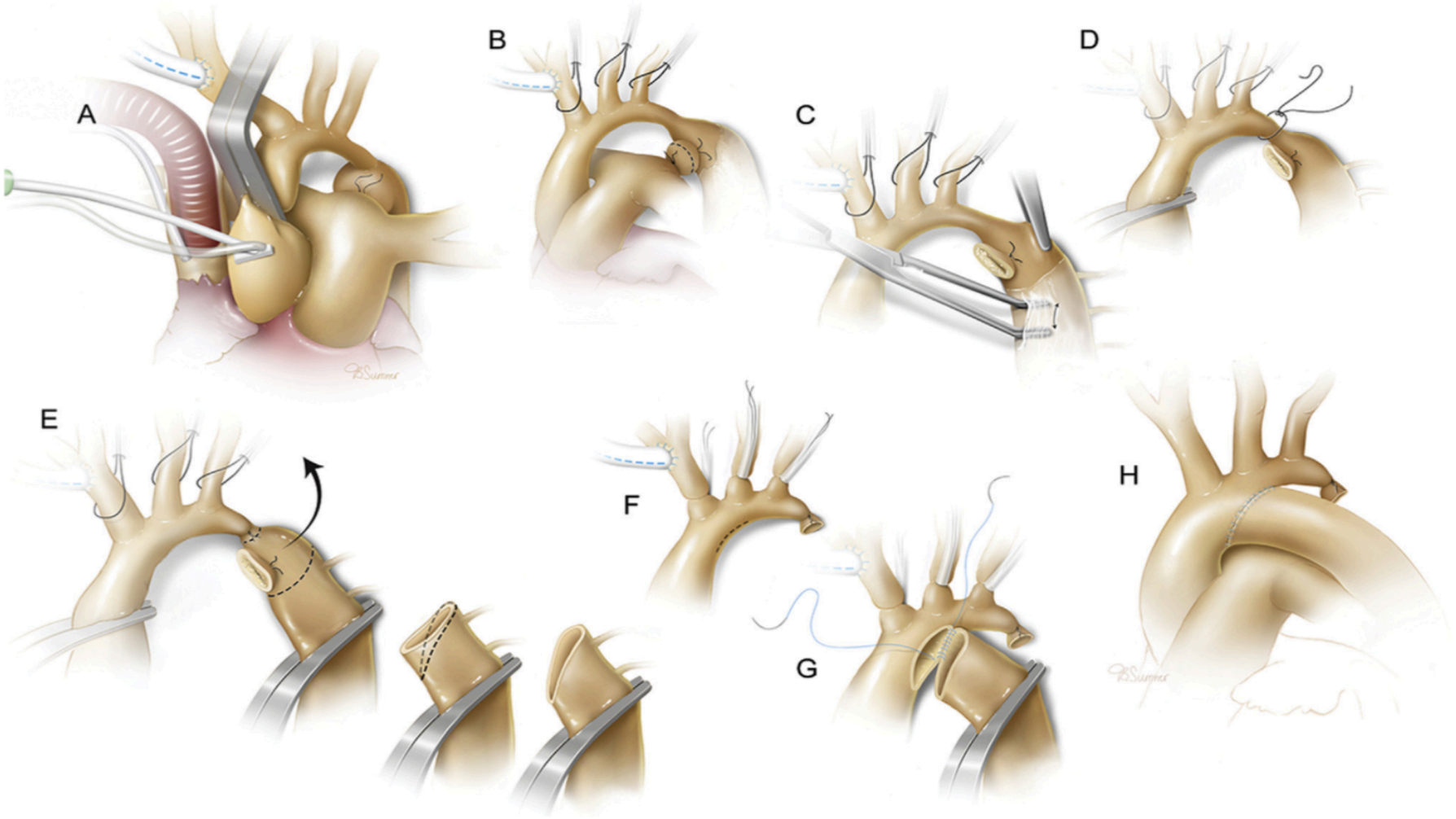
Coarctation Nné : Sternotomie + CEC

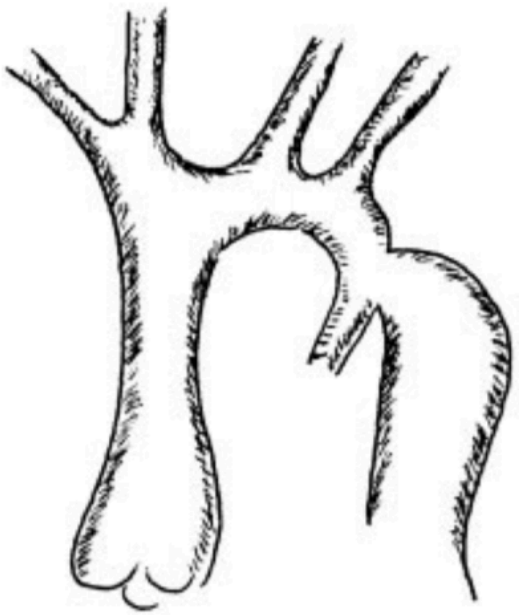


- **+/- patch d'élargissement**

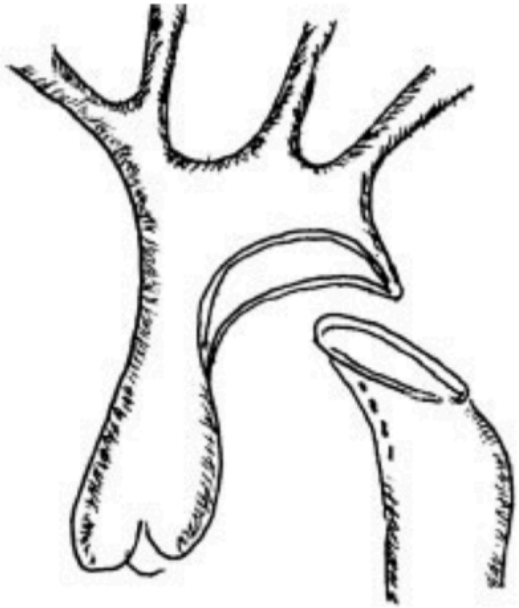
Ann Thorac Surg
2014;98:625–33

hypoplasie arche non gérable par thoraco





A



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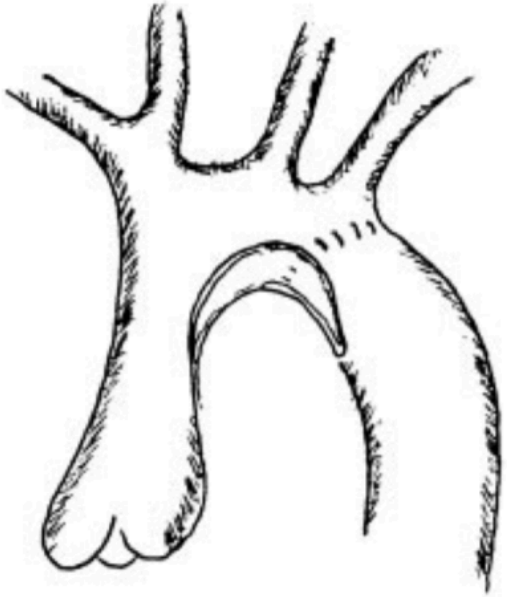

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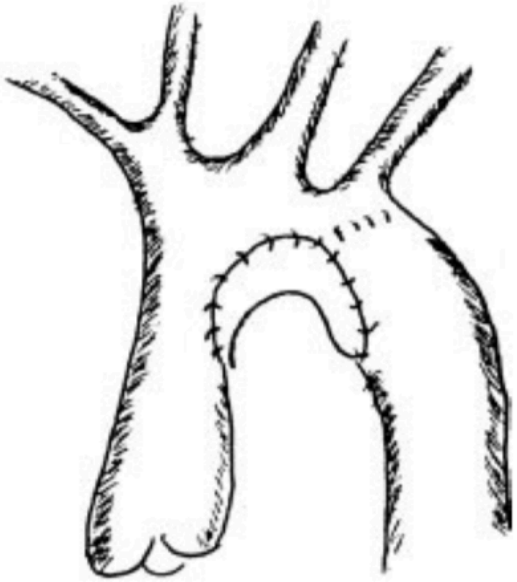

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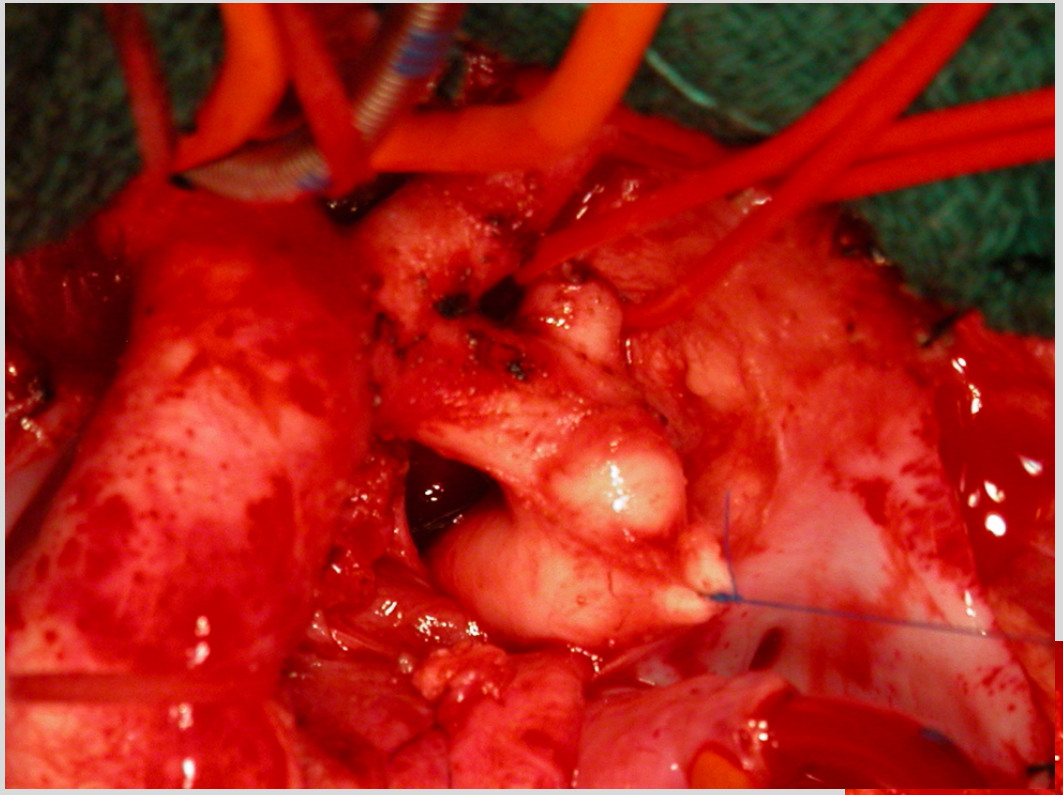

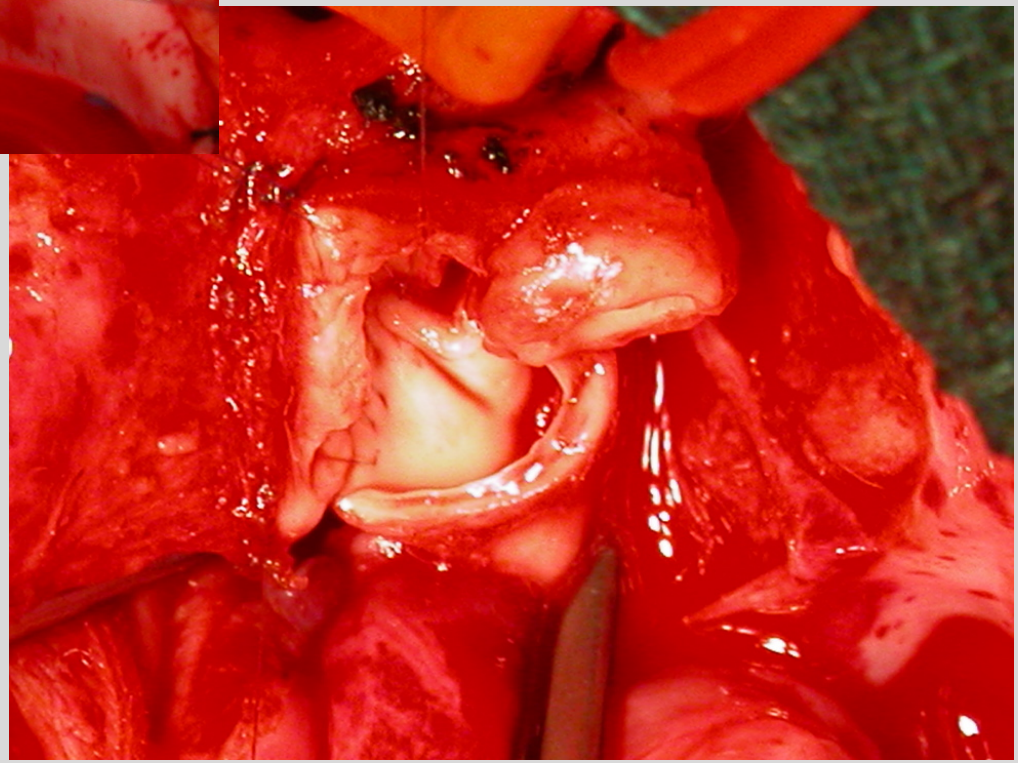

Anomalie du développement de la voie (d'éjection) gauche
Coarctation et lésions intra-cardiaques

Syndrome de coarctation avec CIV, +/- hypoplasie arche
- négliger la CIV
- thoracotomie, Crafoord + cerclage (résorbable?)
- sternotomie, CEC, hypothermie? PCS? CIV
- double approche?

What is the Optimal Management of Infants With Coarctation and Ventricular Septal Defect?

Kirk R. Kanter, MD, William T. Mahle, MD, Brian E. Kogon, MD, and Paul M. Kirshbom, MD

Division of Cardiothoracic Surgery, Department of Surgery, and Children's Healthcare of Atlanta at Egleston, Division of Pediatric Cardiology, Emory University School of Medicine, Atlanta, Georgia

(Ann Thorac Surg 2007;84:612–8)
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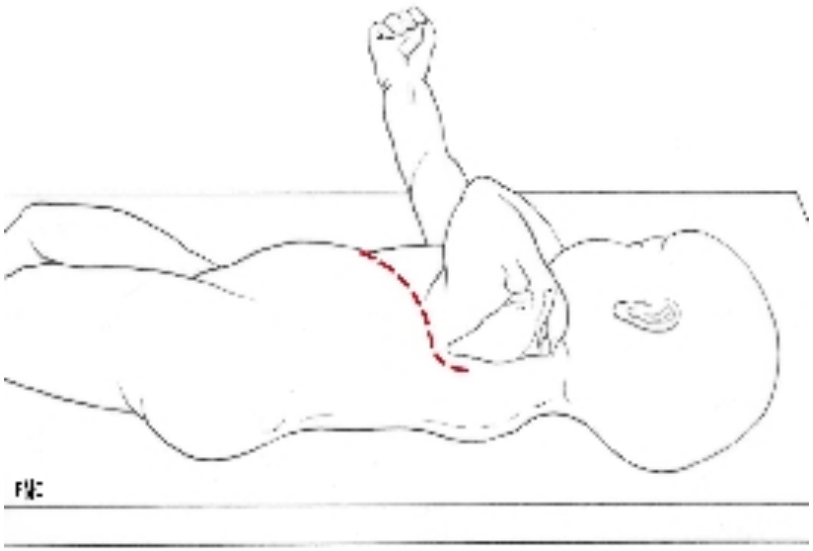
Coarctation sterno : complications précoces

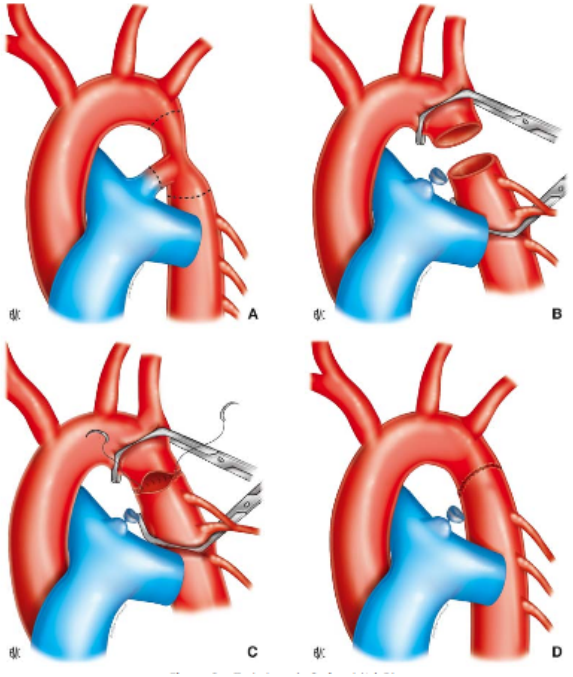
- Saignement
- SIRS – HTAP - …
- Bas débit – Fermeture différée du thorax
- Pas de paraplégie
- Moins de chylothorax
- Paralysie récurrentielle possible aussi

Coarctation : complication tardive

- **Re-coarctation ++++ : traitement endo-vasculaire**

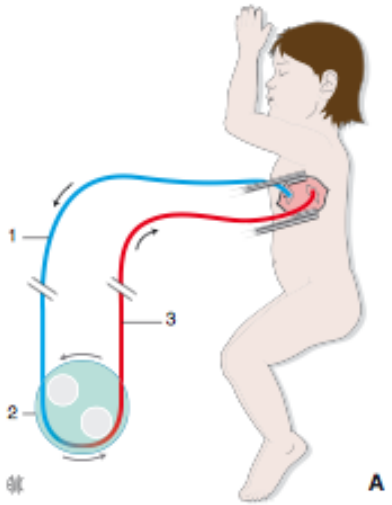
Coarctation enfant (CA fermé)





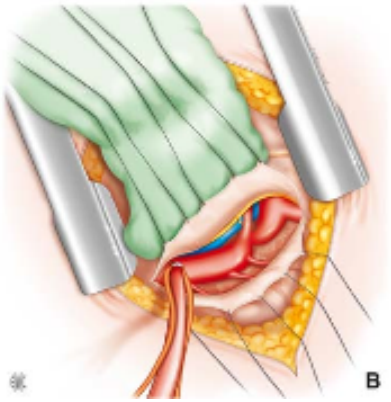
Pas de perturbation hémodynamique au clampage
Risques minimes
Fonction VG habituellement normale (collatéralité)

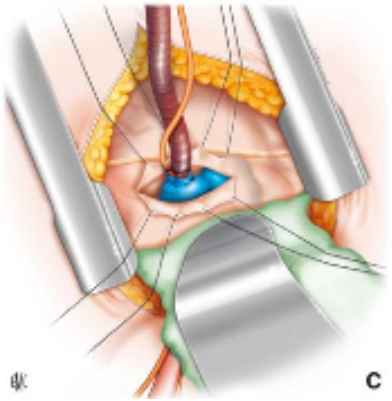
Coarctation grand enfant

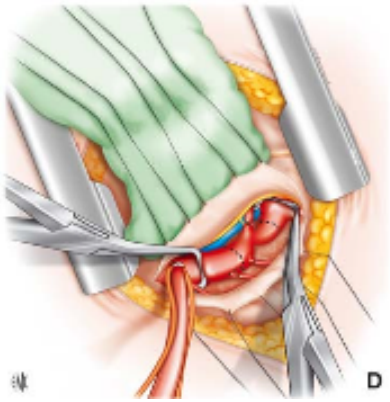


CEC ? :

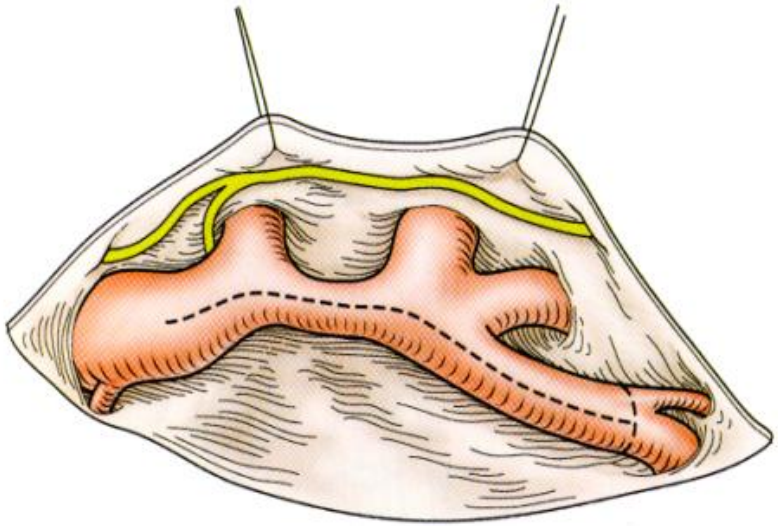
- **Importance des collatérales**
- **Pression aorte thoracique descendante**

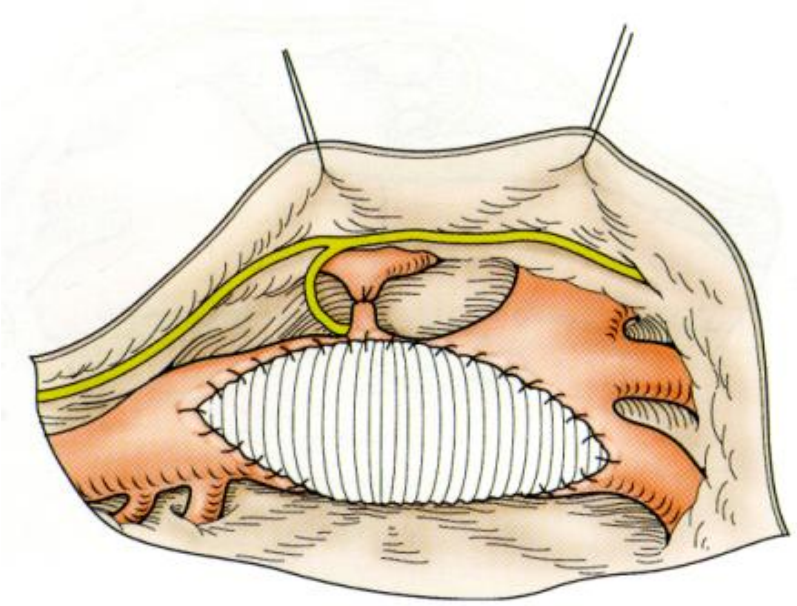




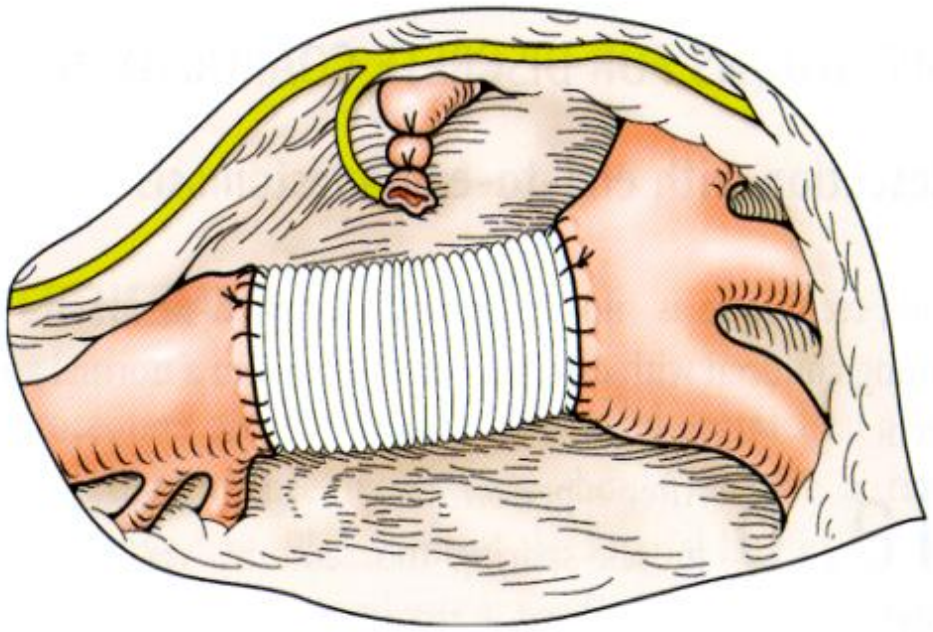


Coarctation +/- grand enfant +++ adulte





Coarctation +++ adulte



TTT endovasculaire +++

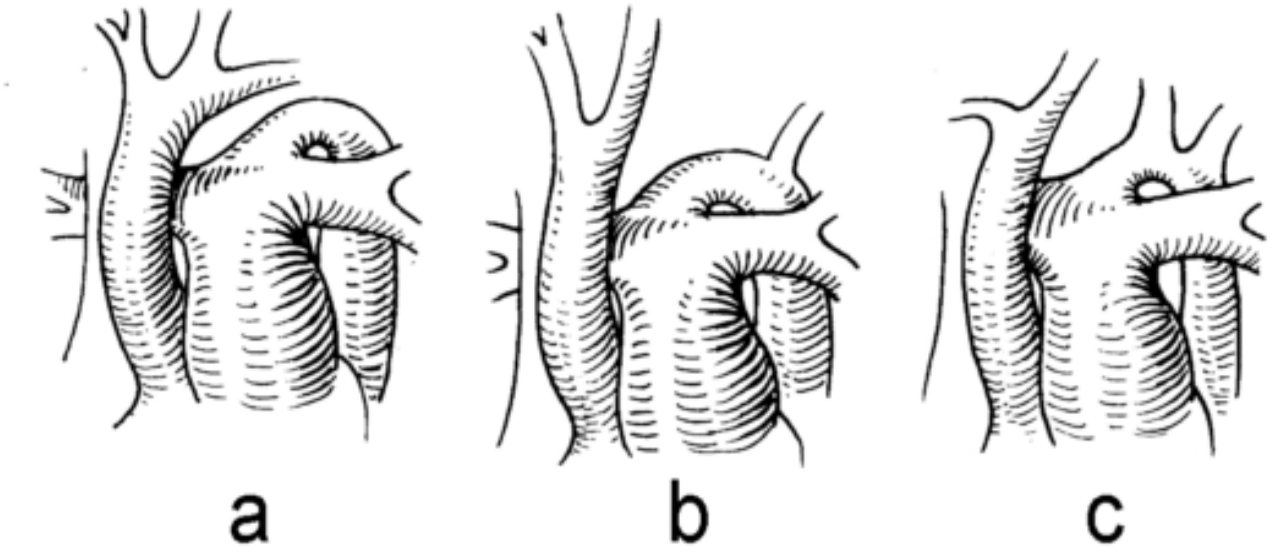
- **POIDS > 30 kg**
- **Expérience**

Interruption de l'arche

Types A B C
Lésions associées fréquentes:

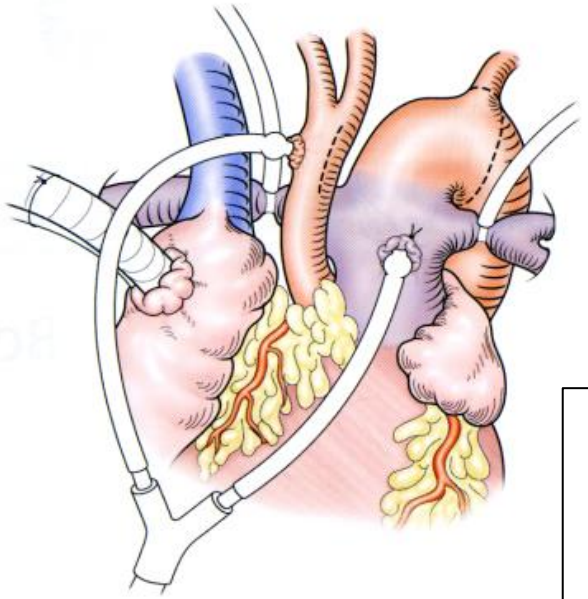
CIV +++ (fermeture par OD +++)

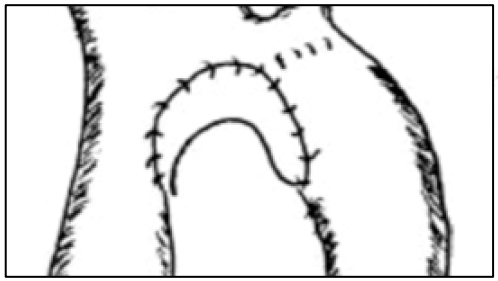
FAP, TGVx (malpositions), truncus arteriosus

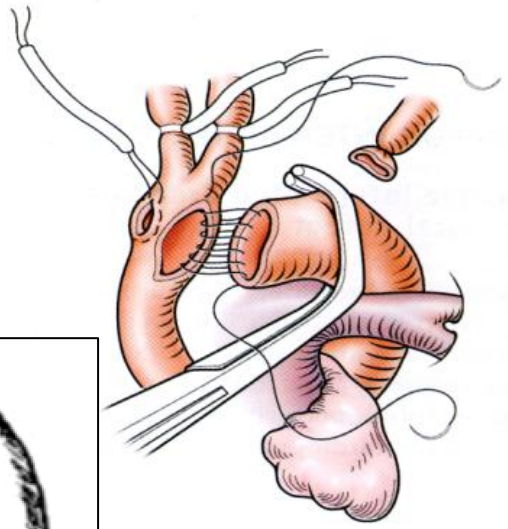


Interruption de l'arche

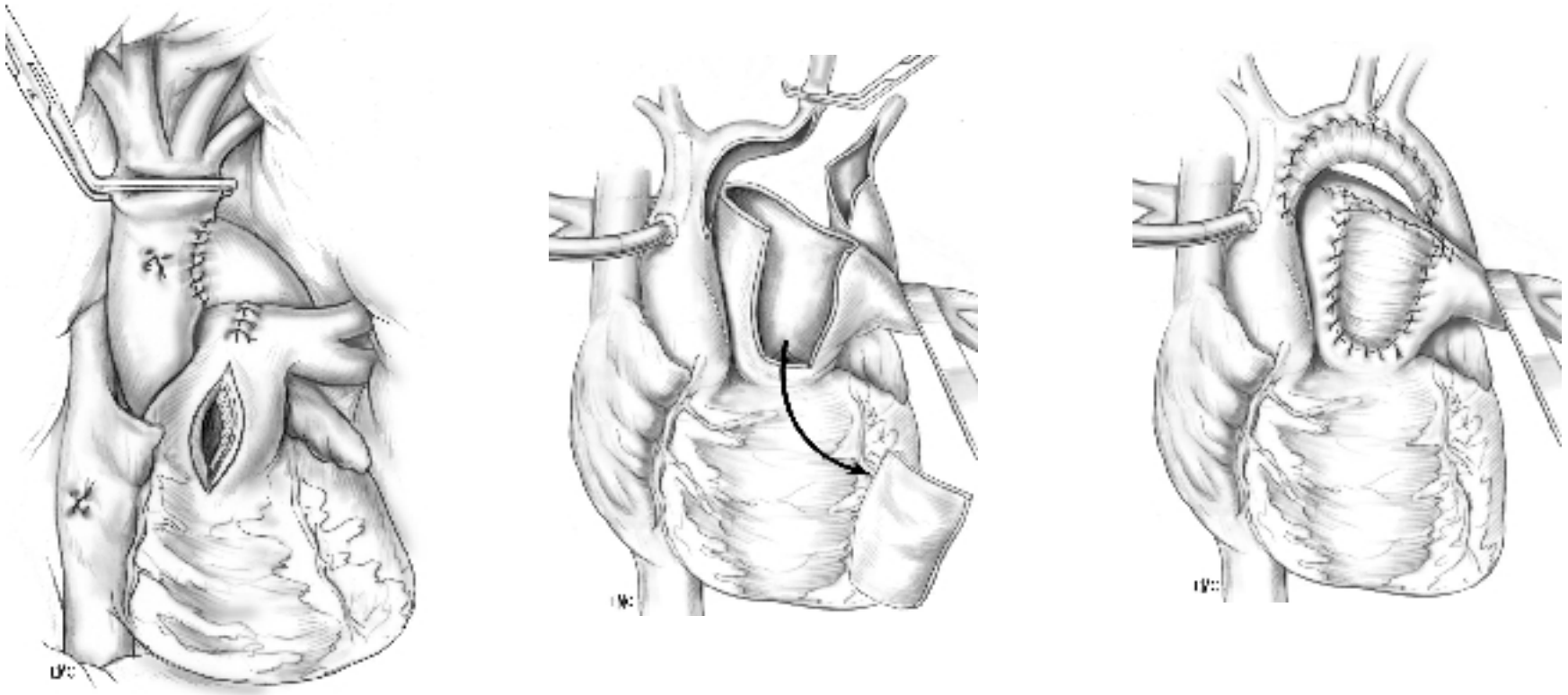
- **CEC systématique sauf cas exceptionnel…**
- **Perfusion cérébrale sélective; coronaire, hypothermie +/- profonde…**





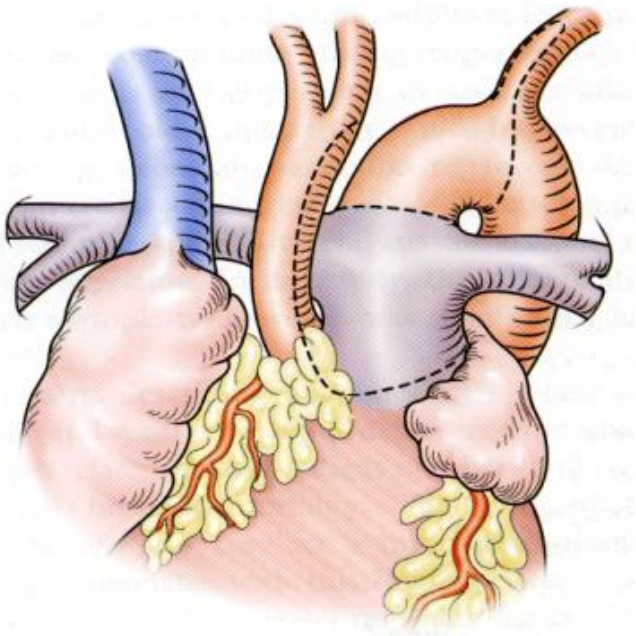


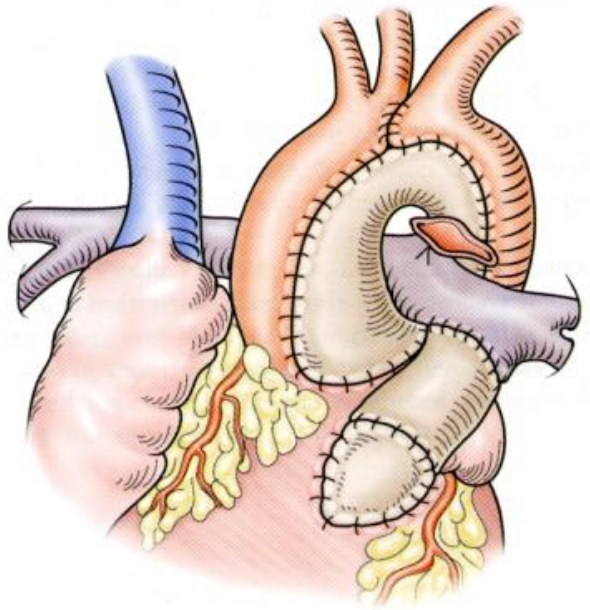
Interruption de l'arche



- **Utilisation fréquente de patch d'élargissement divers…**

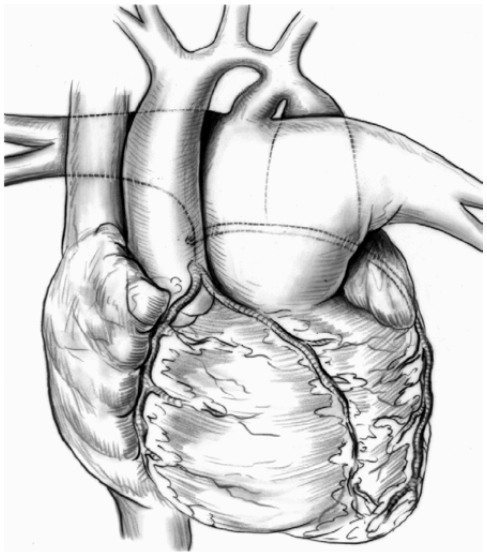
Interruption de l'arche

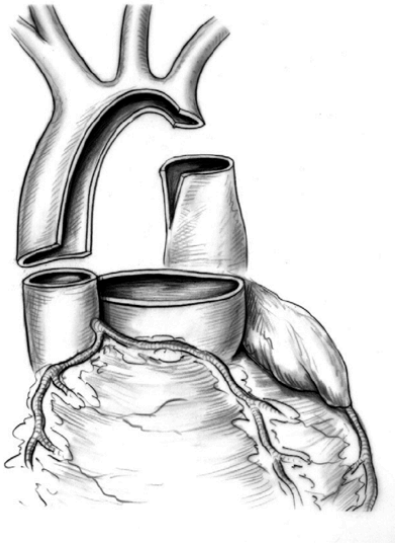


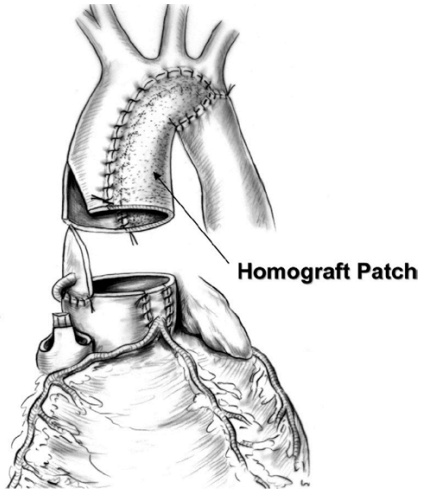


Forme complexe : Truncus arteriosus

Interruption de l'arche







Forme complexe : TGVx (malpositions…)

IAAo : complications précoces

- Saignement
- HTA paroxystique
- Paraplégie
- Iléus réflexe
- Chylothorax
- Paralysie récurrentielle
- **Compression bronchique gauche**
- **Bloc auriculo-ventriculaire**

IAAO : complication tardive

- **Re-coarctation ++++ : traitement endo-vasculaire**
- **Obstacle sous aortique**