



10 a 13 de maio de 2017  
Bahia Othon Palace

## Mesa Redonda: Cuidado e manejo da Coarctação de Aorta ao longo da vida

INTERVENÇÃO PERCUTÂNEA  
Adriano Dourado

Hospital  
SANTA IZABEL



# Coarctação da Aorta



# Coarctação da Aorta



JASN, 18 anos; 1,80 m/63 kg

- DM I, evoluindo com HAS.
- Ecocardiograma SD -> Coarctação da Aorta
- Angio TC



**ACC/AHA 2008 Guidelines for the Management of Adults  
With Congenital Heart Disease: Executive Summary**  
A Report of the American College of Cardiology/American Heart Association  
Task Force on Practice Guidelines (Writing Committee to Develop Guidelines  
for the Management of Adults With Congenital Heart Disease)

Canadian Cardiovascular Society 2009 Consensus  
Conference on the management of adults with  
congenital heart disease: Executive summary

ESC Guidelines for the management  
of grown-up congenital heart disease  
(new version 2010)

- Em coarctação nativa, com anatomia favorável, a angioplastia com ou sem stent é o tratamento de escolha para pacientes adultos.

## **Comparison of Surgical, Stent, and Balloon Angioplasty Treatment of Native Coarctation of the Aorta**

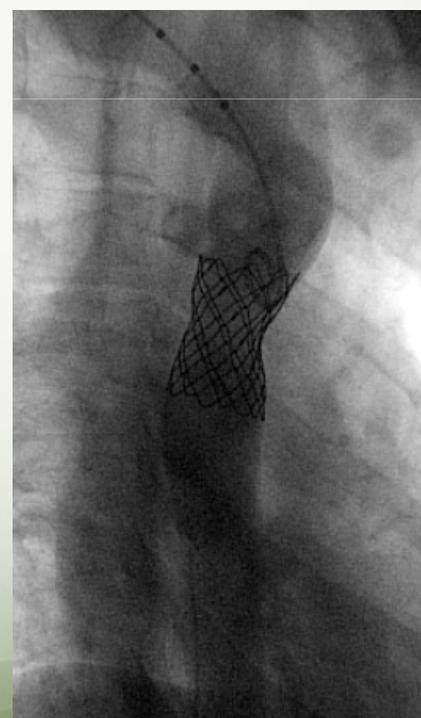
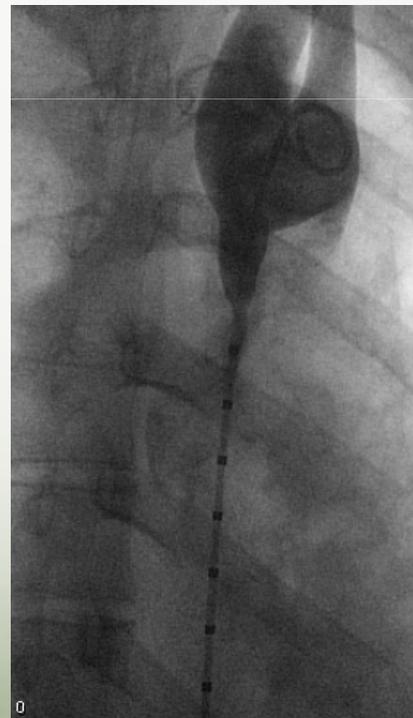
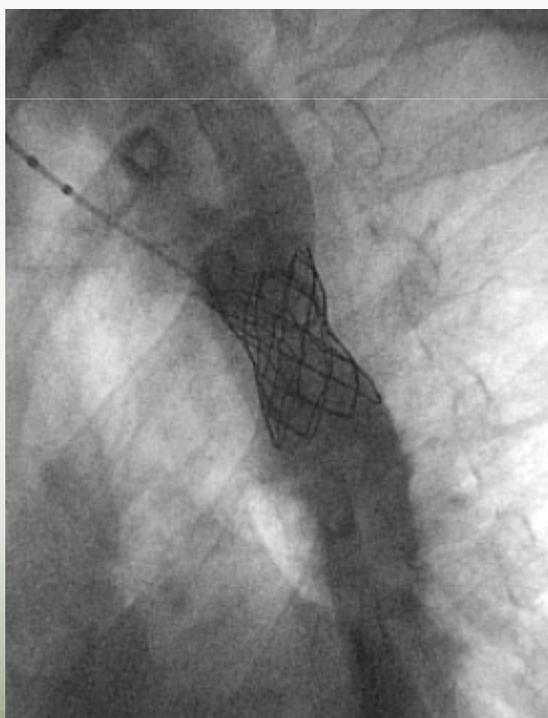
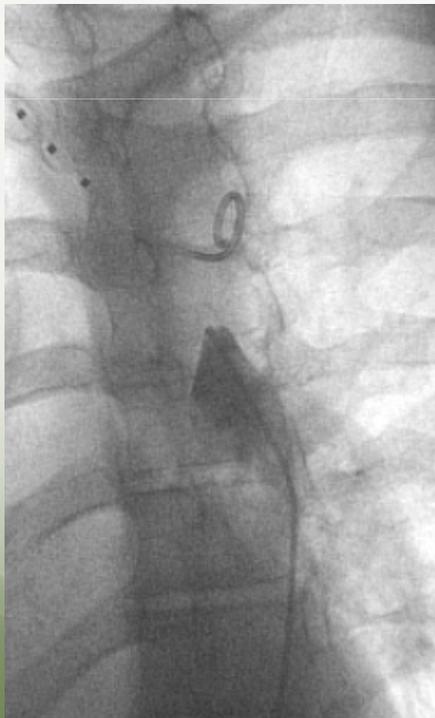
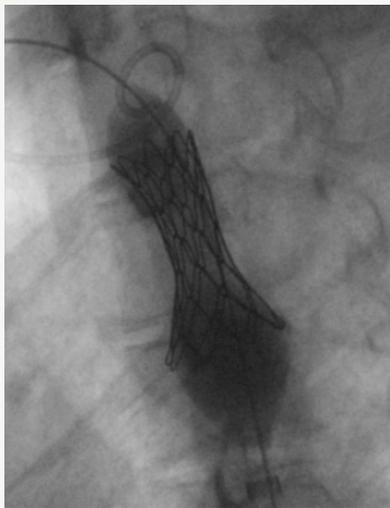
**An Observational Study by the CCISC  
(Congenital Cardiovascular Interventional Study Consortium)**

	<b>Cirurgia (72 pts)</b>	<b>Balão (61 pts)</b>	<b>Stent (217 pts)</b>	<b>p</b>
ITB (mmHg)	8	10	4	0.032
Complicações	18,1%	9,8%	2,3%	<0,001
Internamento (dias)	6,4	3,6	2,4	<0,001

- Seguimento médio > 18 meses
  - “balão” piores resultados hemodinâmicos e angiográficos
  - Stent > necessidade programada de reintervenção

# Stent para Coarctação

Stent Forrado montado em balão 22 cm



# Stents Forrados

CP Stent



Advanta V12



- Stent forrado é seguro, com resultados semelhantes ao não forrado, entretanto não há evidência de redução de aneurisma
- > perfil
- Indicação aceita:
  - pctes de alto risco para formação de aneurisma: >40 anos; Sínd. Turner; lesões quase atrésicas ou interrupção do arco

Aphrodite Tzifa, MRCPCH,\* Peter Ewert, MD,† Grazyna Brzezinska-Rajszyz, MD,‡ Bioern Peters, MD,† Maria Zubrzycka, MD,‡ Eric Rosenthal, MRCP,\* Felix Berger, MD,† Shakeel A. Qureshi, FRCP\*  
*London, United Kingdom; Berlin, Germany; and Warsaw, Poland*

**OBJECTIVES** This study sought to evaluate the use of covered Cheatham-platinum (CP) stents in the treatment of aortic coarctation (CoA).

**BACKGROUND** Aortic aneurysms and stent fractures have been encountered after surgical and transcatheter treatment for CoA. Covered stents have previously been used in the treatment of abdominal and thoracic aneurysms in adults. We implanted covered CP stents as a rescue treatment in patients with CoA aneurysms or previous stent-related complications and in patients at risk of developing complications because of complex CoA anatomy or advanced age.

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## Immediate Outcomes of Covered Stent Placement for Treatment or Prevention of Aortic Wall Injury Associated With Coarctation of the Aorta (COAST II)



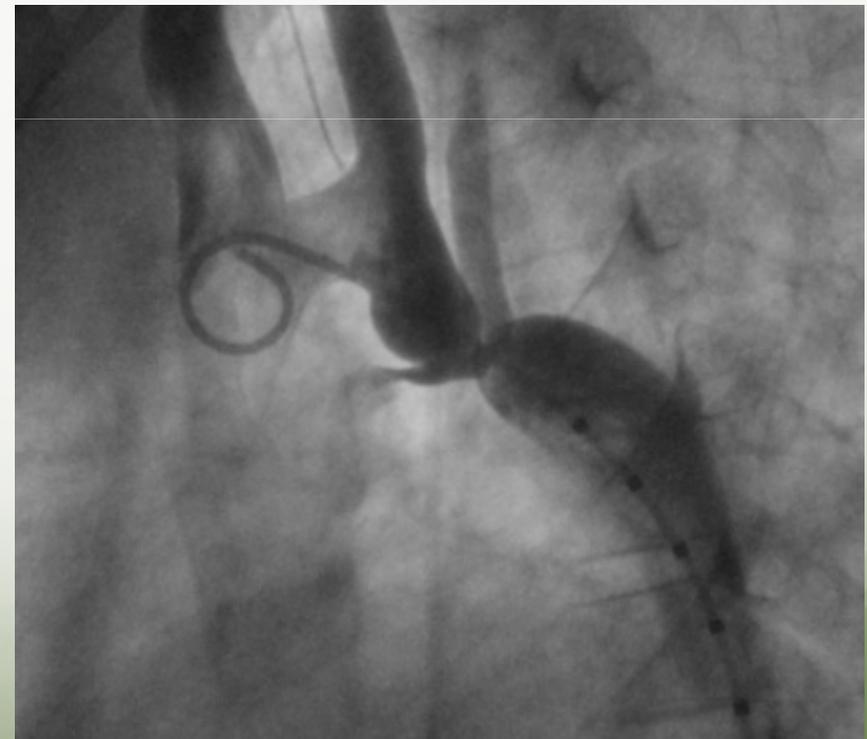
158 pts com  
CAo alto risco

# Coarctação Proximal + PCA (envolvendo ASE)

DSS, 12 anos (30kg / 1,47m)

- Dispnéia e palpitações em repouso
- Flutter/FA intermitente
- ECO:
  - IM grave c/ rotura cordoalha
  - CoAo grave envolvendo origem da ASE
  - Aumento AE ; contratilidade preservada ambos ventrículos
  - PSAP 83 mmHg
  - PCA

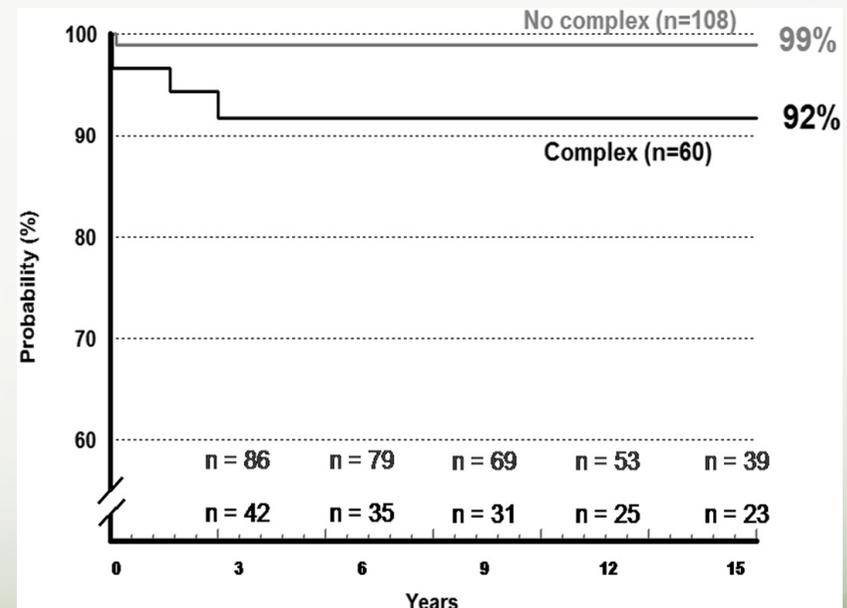
# Coarctação Proximal + PCA (envolvendo ASE)



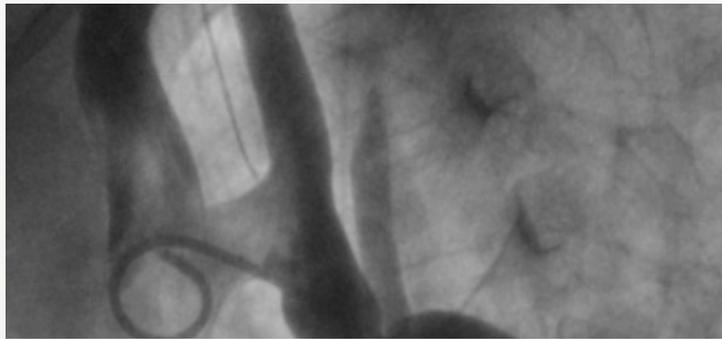
# Stent Repair for Complex Coarctation of Aorta



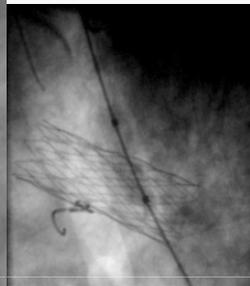
- 60 pacientes com seguimento médio 10 anos
- Casos complexos:
  - interrupção arco aórtico;
  - lesões longas;
  - envolvimento de ramos;
  - aneurismas;



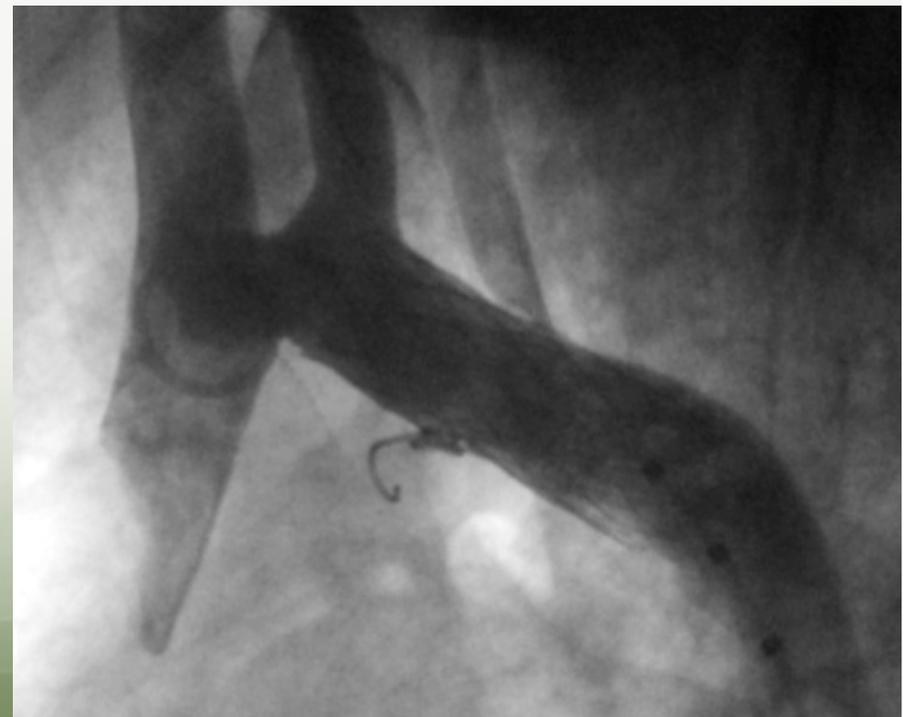
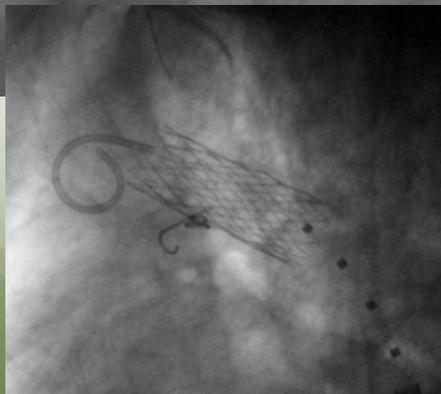
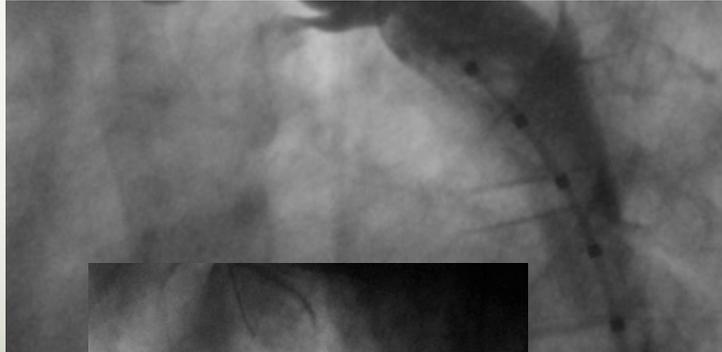
# Coarctação + PCA



Balão AS E



Plastia Mitral mesmo internamento.  
Evoluindo bem



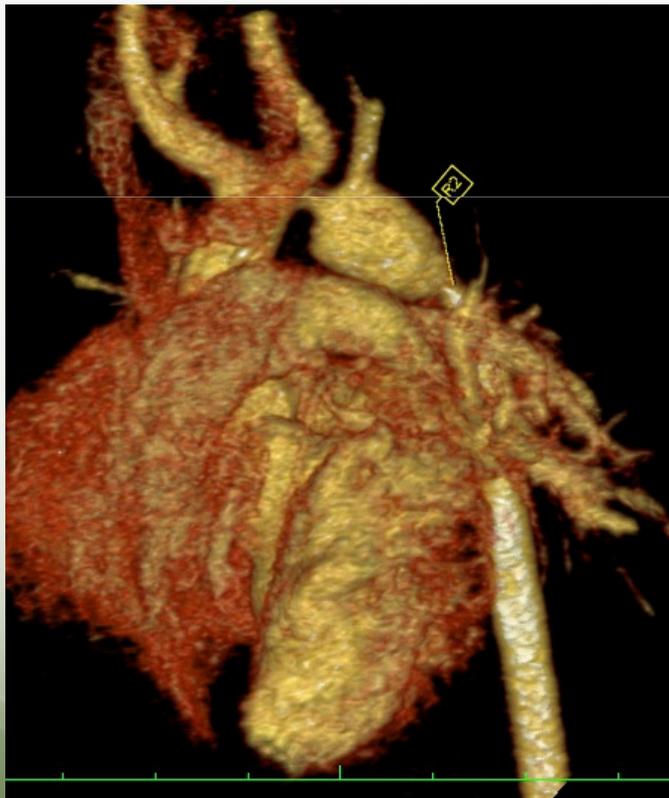
# Recoarctação

CMS, fem., 11 meses. 9kg

- Coarctação da Aorta + CIV submetida a correção cirúrgica no 1<sup>o</sup> mês vida (ICC)
- ECO sugere recoarctação em bordos cirúrgicos => Angio TC



# Recoarctação



## ESC Guidelines for the management of grown-up congenital heart disease (new version 2010)

### RECOARCTAÇÃO

- Angioplastia com ou sem stent é o tratamento preferencial;
- Nova cirurgia apresenta risco elevado, principalmente acima de 30 anos;

## **AHA Scientific Statement**

### **Indications for Cardiac Catheterization and Intervention in Pediatric Cardiac Disease**

**A Scientific Statement From the American Heart Association**

*Endorsed by the American Academy of Pediatrics and Society for Cardiovascular Angiography and Intervention*

*Circulation. 2011;123:2607-2652.*

- **Recommendations for Transcatheter Balloon Angioplasty of Coarctation/Recoarctation of the Aorta**

**CLASSE I C**

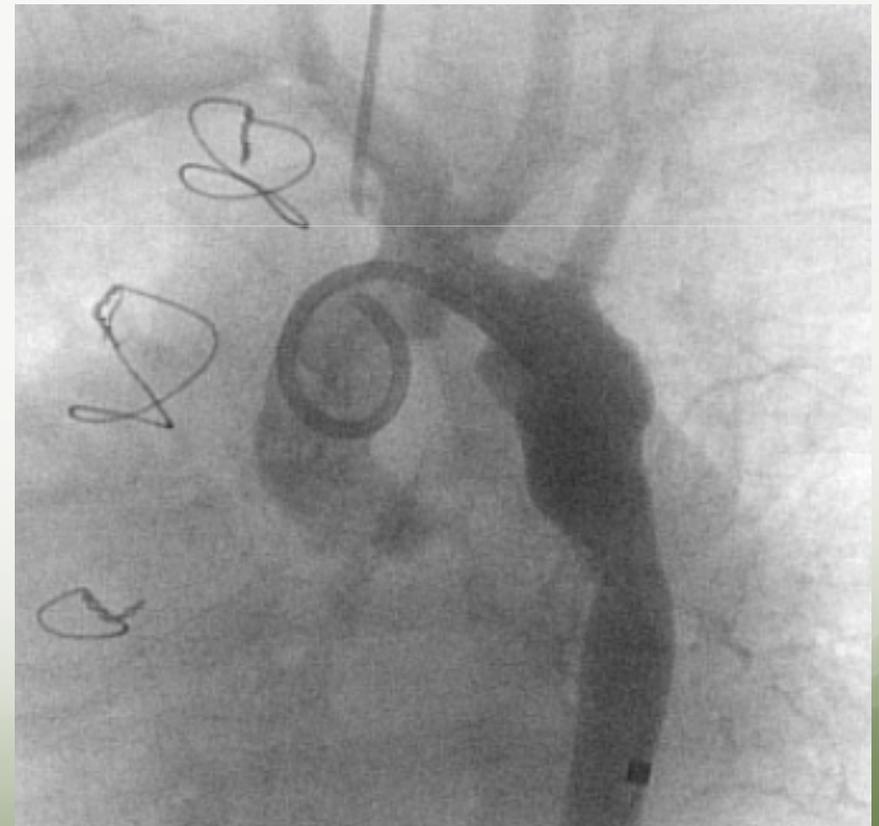
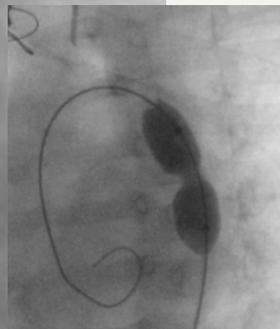
- **Recommendations for Stent Placement in Native Coarctation and Recoarctation of the Aorta**

**CLASSE I B**

# Recoarctação



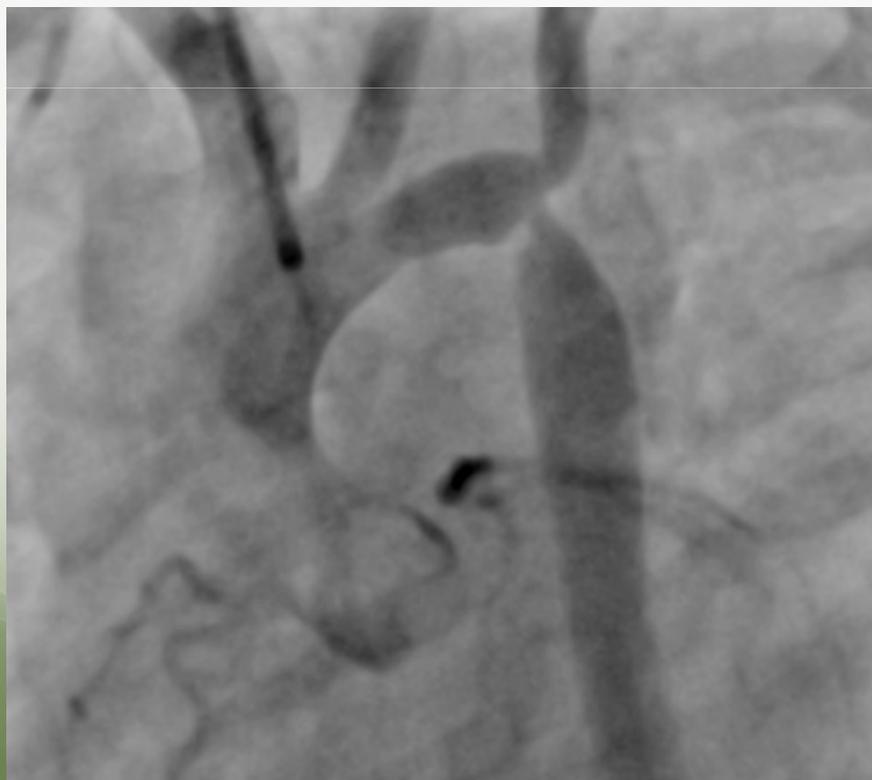
Balão



# Coarctação- RN / Lactente

LGPS, 23 dias, 2º DPO cir. CoAo e oclusão PCA

- Instabilidade hemodinâmica
- ECO TT mostra Re-CoAo grave



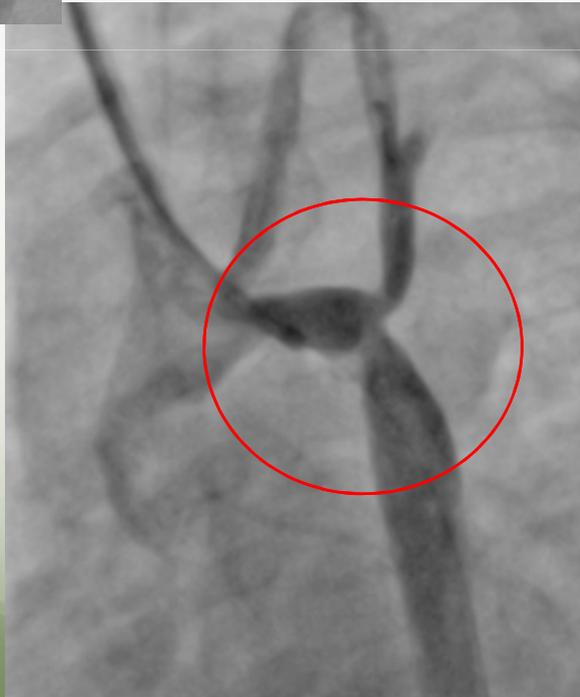
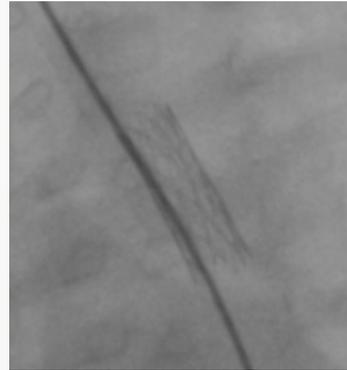
# Congenital Heart Disease

## Percutaneous Common Carotid Artery Access for Pediatric Interventional Cardiac Catheterization

Henri Justino, MD; Christopher J. Petit, MD

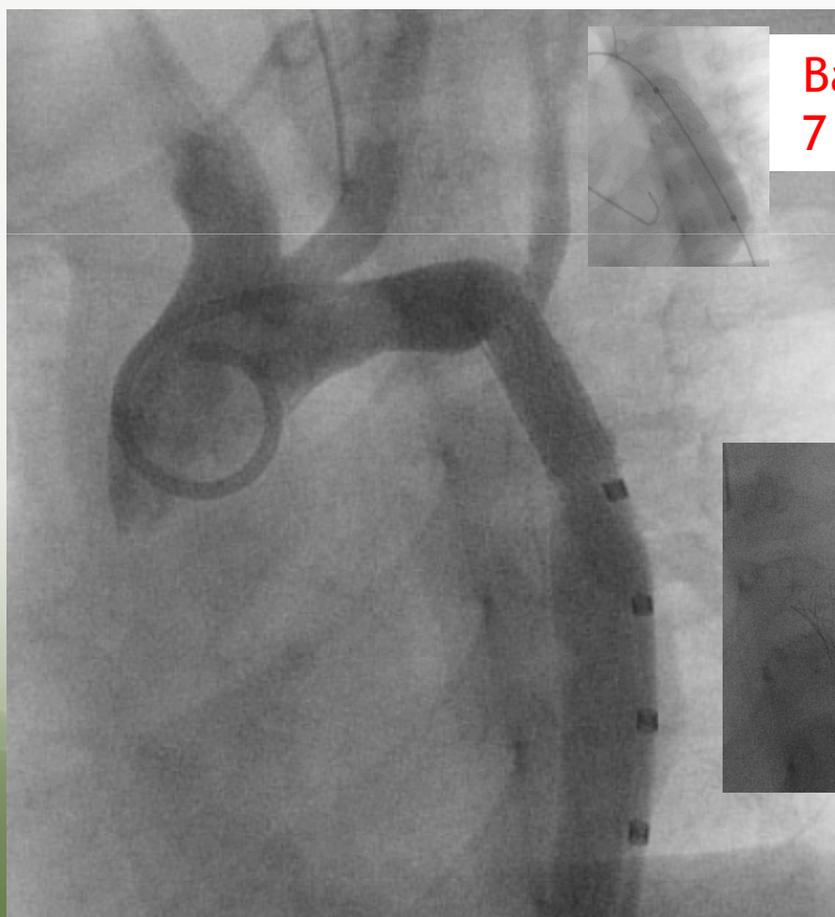
- 42 pctes: mediana da idade 20 dias (0 a 2,9 anos) e do peso 3,2 kg
- 45 punções de artéria carótida (47 tentativas)
- 44 procedimentos realizados com sucesso
- Complicações:
  - 03 trombooses de artéria carótida revertidas
  - 01 pseudoaneurisma tratado cirurgicamente
- **Nenhuma sequela neurológica !**

# Coarctação Nativa - RN / Lactente



# Coarctação- RN / Lactente

4 anos com nova recoarctação



Balão  
7 mm



# Aneurisma pós correção

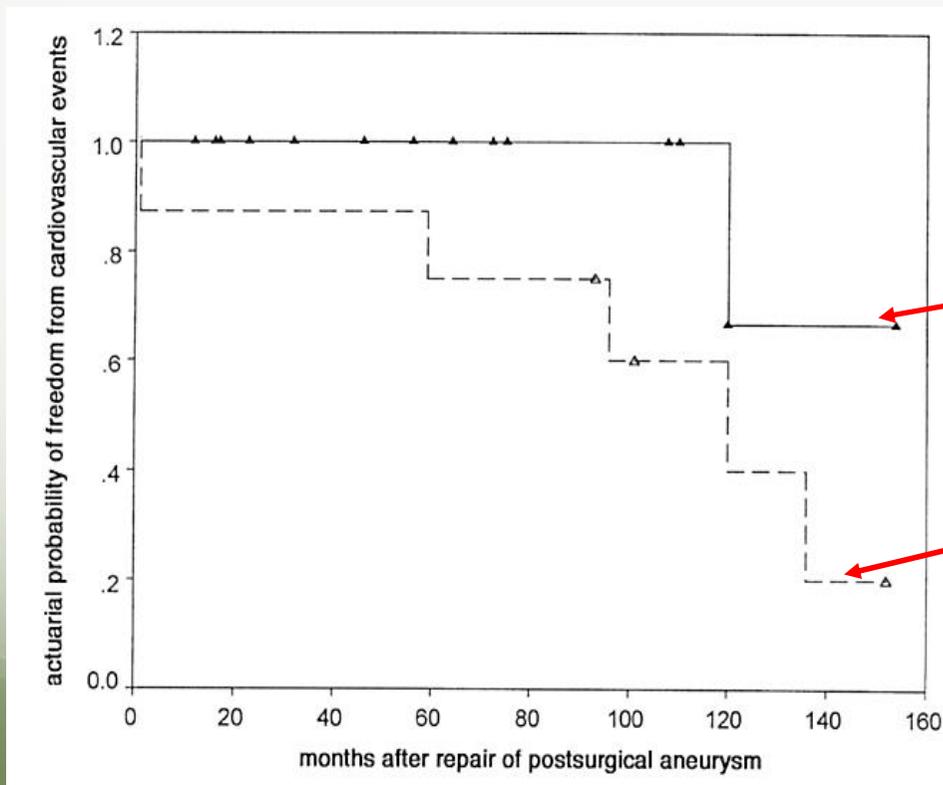
**CIRURGIA X INTERVENÇÃO PERCUTÂNEA**

# 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*

Meta-análise => 9% de aneurismas



Local do Aneurisma

coarctação

Aneu. tipo A

## **Comparison of Surgical, Stent, and Balloon Angioplasty Treatment of Native Coarctation of the Aorta**

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## Comparison of Surgical, Stent, and Balloon Angioplasty Treatment of Native Coarctation of the Aorta

An Observational Study by the CCISC  
 (Congenital Cardiovascular Interventional Study Consortium)

	j	y		‡
Dissection/intimal tear	0.0%	7.1%	0.0%	0.062
<b>Aneurysm</b>	<b>11.5%</b>	<b>14.3%</b>	<b>3.1%</b>	<b>0.040‡</b>
Coarct:Dao ratio, mean	0.91	0.73	0.82	0.003‡
Coarct:Dao ≥0.6	87.0%	79.0%	90.0%	0.247
Any reobstruction	19.2%	32.1%	15.4%	0.057
Mild†	7.7%	17.9%	11.3%	
Moderate	7.7%	3.6%	4.1%	
Severe	3.9%	10.7%	0%	



100000 EXAMES