

Infants , Neonates

- The current trend in practice is to favor Surgical repair rather than Trans-Catheter intervention
- Re-Coarctation
- Femoral Artery Damage

Palliative Stenting

Children

Native Or Re-Coarctation

Dissection
Acute rupture
Chronic Aneurysm

Adults

The Rationale for Stent Implantation

- Over-dilation of the coarctation segment is unnecessary, thus avoiding major transmural tears.
- The stent struts will splint any smaller tears against the aortic wall, preventing progressive dissection and aneurysm formation.
- The acute elastic recoil of the coarctation segment, which contributes to a suboptimal initial result and late recoarctation, is prevented by stent implantation, leading to a greater relief of obstruction than with balloon dilation alone.

COA Stenting: History

I. **Palmaz stents** 30 8 18 8 (Johnson & Johnson Interventional Systems Co.)

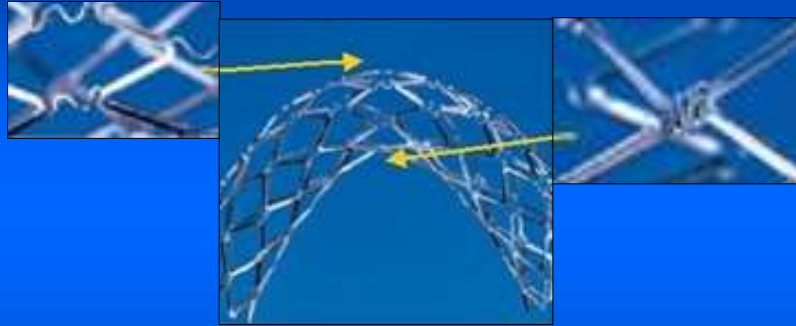
- XLD Palmaz stents 31 10 –50 10
- The Palmaz Genesis stent (Cordis/ Johnson & Johnson Interventional Systems Co)
- XLD Palmaz Genesis

II. **The Intrastent (IT) double strut**

- **Mega LD**
- **Max LD**

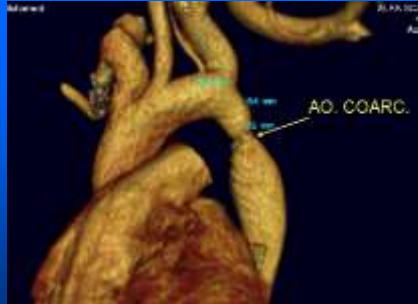
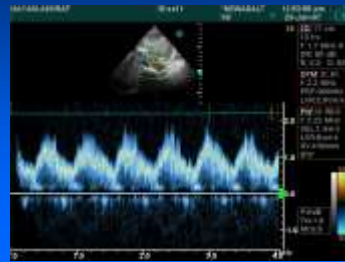
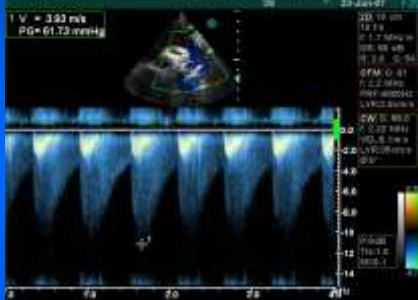
III. **Cheatham-Platinum (CP) Stent** (NuMed, Hopkinton, NY)

The Palmaz Genesis stent



Flex segment technology allows for better negotiation of curves while maintaining radial strength

Pre-stenting



Technique for Stenting





Immediate Results

Angiography
Pressure Gradient

Late Follow Up

Aspirin 6 mo.
Anticoagulants!! No
Hypertension
MCTA

Follow up



Conclusion

Coarctation management;

It is not a competition but it is a major burden to choose the right approach for the specific patient, whether surgery, balloon or stent.

Each of these modalities have a role for a specific patient.

The patient's age, weight, history of surgery influences in great deal the management strategy.

