

## COARCTATION STENTING BY VALEO STENT

Aliakbar Zeinaloo / Keyhan Sayadpour Zanjani  
Children's Medical Center, Tehran University of Medical Sciences, Tehran, Iran

### OBJECTIVES

Modern technology may bring new stents redilatable up to adult aortic size and implantable in small children. Valeo stent is a relatively recent tool for coarctation stenting. We used this stent in two patients.

### METHODS

Stenting was performed using Valeo stents via 7 or 6 Fr long sheaths using the classic method. Valeo stent can be redilated to 20 mm (9 and 10 mm) or 16 mm (smaller sizes) and can be used for coarctation stenting. The smaller sizes can be broken by a high pressure balloon at 16mm diameter, which makes implantation of a larger stent possible.

### RESULTS

The first patient was 4.5 years old and weighed 18 kg. He had coarctation of aorta (COA) and patent ductus arteriosus (PDA). We first occluded the PDA by coil. Then, we stented the coarctation by a Valeo stent (10 mm diameter, 26 mm length). Pressure gradient decreased from 63 mmHg to 12. The second patient was 4 months old weighing 4.5 kg with d-transposition of the great arteries, long-segment COA, PDA, and pulmonary bifurcation stenosis. For this rare combination of anomalies, we decided to increase the interatrial communication by balloon septostomy, stenting the COA, and scheduling the patient for Senning operation in the future. COA stenting was done by a 6 mm wide 18 mm long Valeo stent.

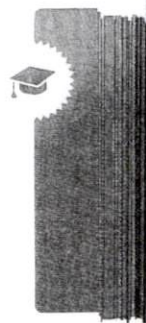
### CONCLUSION

Valeo stent can be a promising stent for COA.

121

COARCTATION AND DUCTS / A6

①



## DUCTAL STENTING BEYOND NEONATAL PERIOD: IS IT ACCEPTABLE AS A SUBSTITUTE TO A SURGICAL SHUNT

①

Keyhan Sayadpour Zanjani / Aliakbar Zeinaloo / Reza Shabaniyan / Zahra Mousavi  
Children's Medical Center, Tehran University of Medical Sciences, Tehran, Iran

### OBJECTIVES

Ductal stenting is increasingly used as a substitute to surgical shunt in neonates due to lesser traumatic burden and complication rate. Reported uses of this method in older patients are rare. If effective, it may be reasonable to use it in older patients as well.

122

COARCTATION AND DUCTS / A7

### MATERIALS

Since February 2014, we have used ductal stenting to increase pulmonary blood flow in seven patients older than 2 months with pulmonary atresia and ventricular septal defects (3–96 months old, median 14). Cobalt-chromium stents were used in all patients due to their excellent trackability (either peripheral Palmaz Blue or coronary Kaname stents). Five stents were implanted via femoral artery and two from axillary artery.

### RESULTS

Oxygen saturation increased between 7 to 35% (median 20) after stenting. The older patients had the worst results. In the oldest patient, we could only stent the distal ductus arteriosus due to the narrow aortic side. A major aortopulmonary collateral artery stenting made the procedure favorable. The next oldest (59 months) had a tight obstruction at the middle of the duct, which could not be dilated with a high pressure balloon (14 atm). The third patient (22 months) developed a waist at the middle of the stent, which was relieved by a high pressure balloon at a second catheterization.

### CONCLUSION

Ductal stenting can be a good substitute for surgical shunts in patients younger than 2 years.