



UNIVERSITY OF PADOVA
ITALY



Mid term outcome of arterial
duct stenting: results of a
multicentre study



DISCLOSURE



NO DISCLOSURE



Methods



- 🐻 Multicentre retrospective study
- 🐻 March 2003-June 2010
- 🐻 Patients with duct dependent pulmonary circulation
- 🐻 Intention-to-treat base



Methods








- 🐻 Criteria for choosing AD stenting
- 🐻 Age, weight, CHD
- 🐻 Pre/post stenting O₂ Saturation
- 🐻 Ductal length/stent dimension
- 🐻 Procedural mortality/morbidity



Methods







-  30 day mortality
-  Need for further B/T shunt
-  Need for stent dilatation
-  Distorsion of the PAs
-  Follow-up mortality



Results



Demographic data of 99 patients






	n. pts
 Male	66
 Female	33
 Age	38+79 days (range 1-502, median 9)
 Weight	3.4+1.6 kg (range 1.4-12, median 3.1)



Results



Basic Heart Malformation






	n. pts
 PA/PS + intact ventricular septum	36
 TOF/PA+ ventricular septal defect	31
 Ebstein Anomaly of the tricuspid valve	7
 Tricuspid atresia + PA	2
 Complex congenital heart disease + PA/PS	23



Results



Criteria for choosing arterial duct stenting








	n. pts
 Expected need for short-term support to the pulmonary circulation	40
 High-risk profile for conventional surgery	28
 Elective alternative to systemic-to-pulmonary artery	20
 Ductal dependency of one or both pulmonary artery	10
 Rescue of surgical recruitment of PDA and collaterals	1



Results

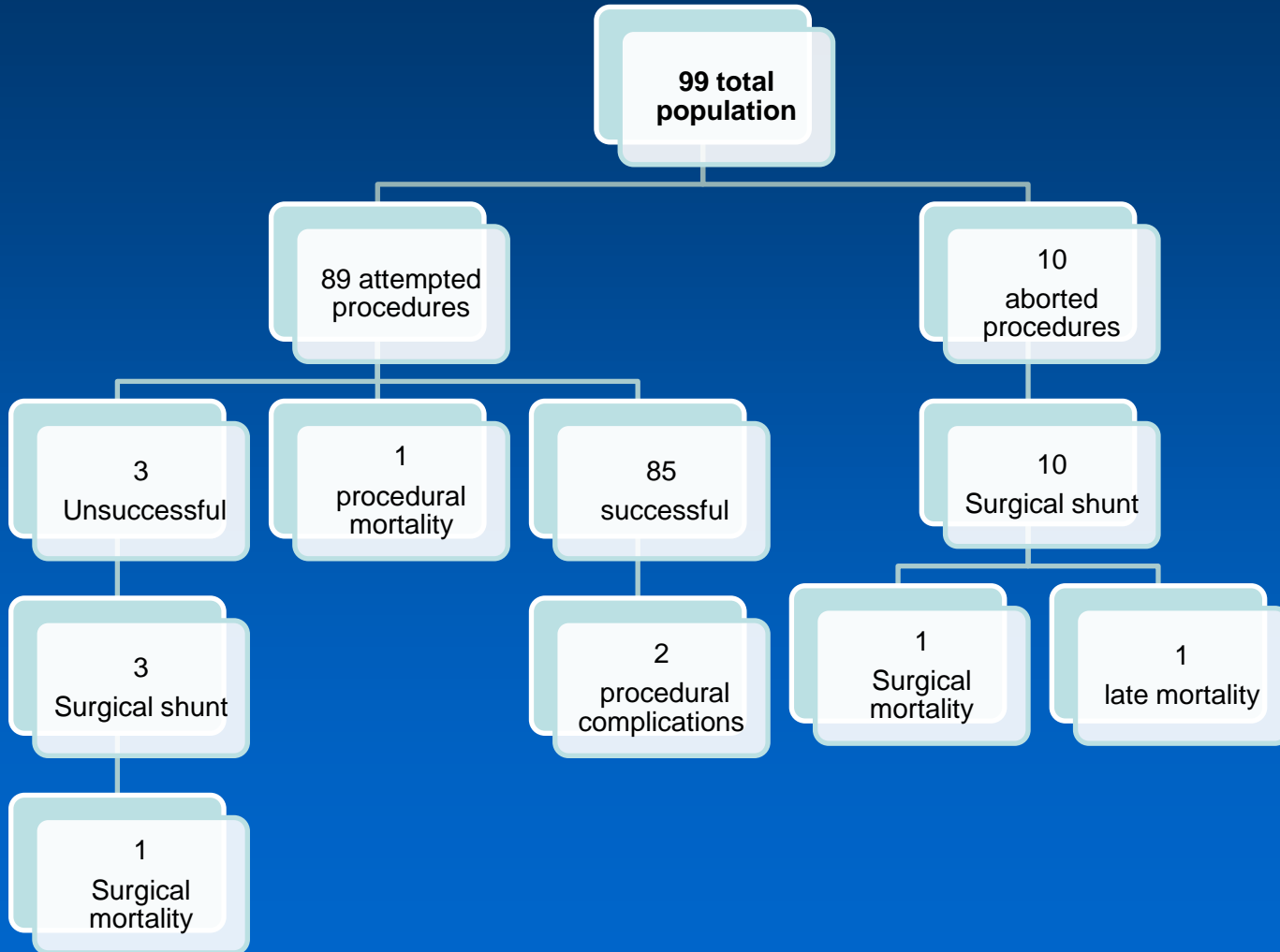


Cardiac Catheterization data (99 patients)

 General anaesthesia n (%)	99 (100%)
 Arterial approach, n (%)	95 (96%)
 Venous approach, n (%)	4 (4%)
 Median duct length (range)	1.4 (0-4)
 Median stent dimension (range)	3.4(2.75-4.5)
 Median pre-procedural O ₂ sat (range)	75 (60-92)
 Median post-procedural O ₂ sat (range)	92, (76-96)

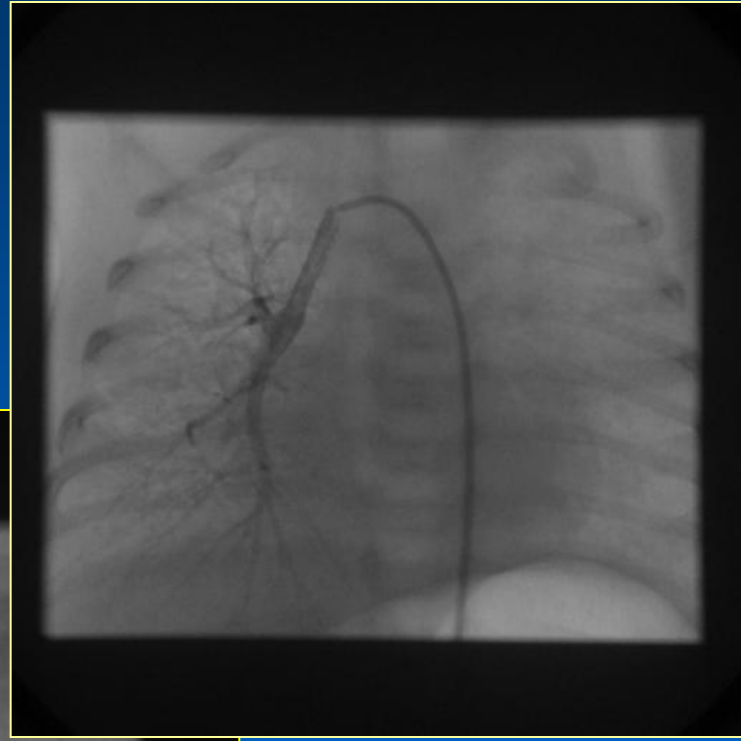
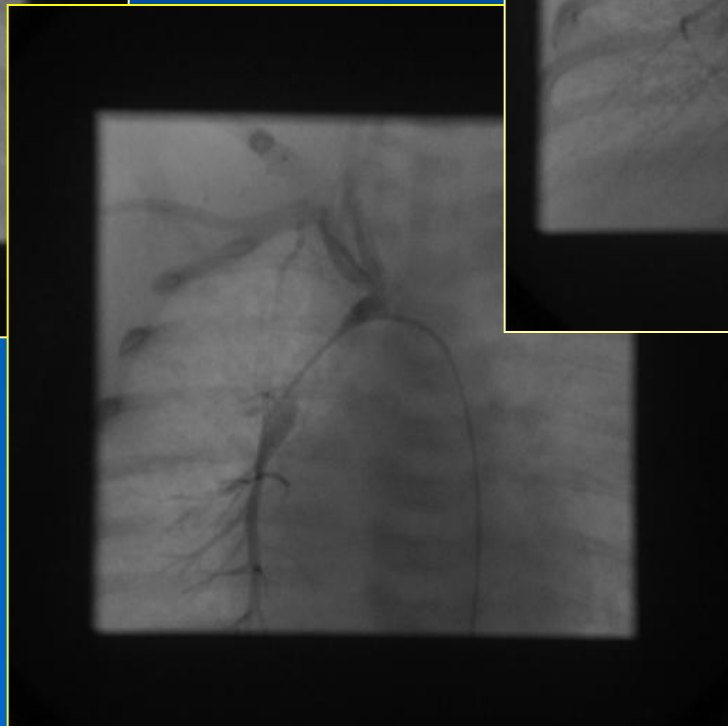
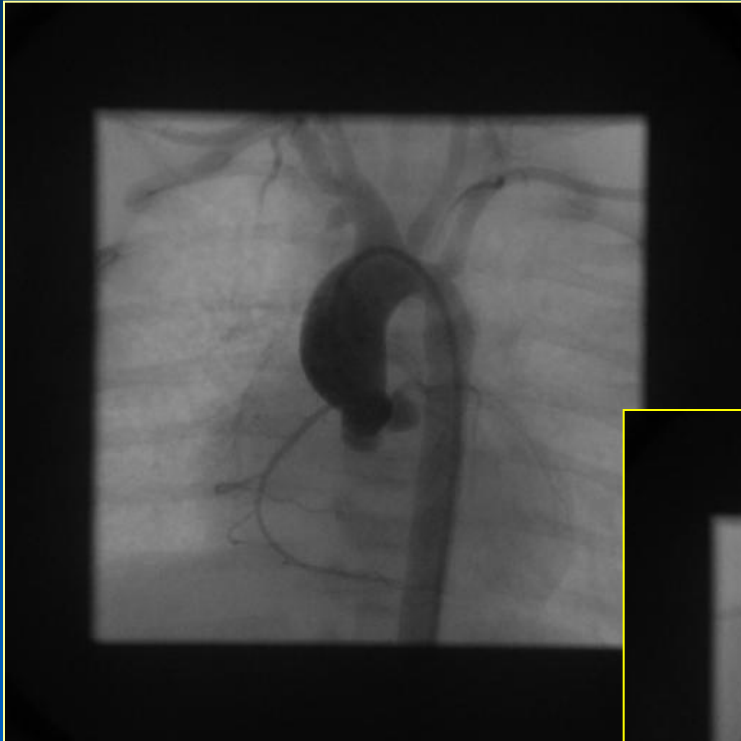


Results



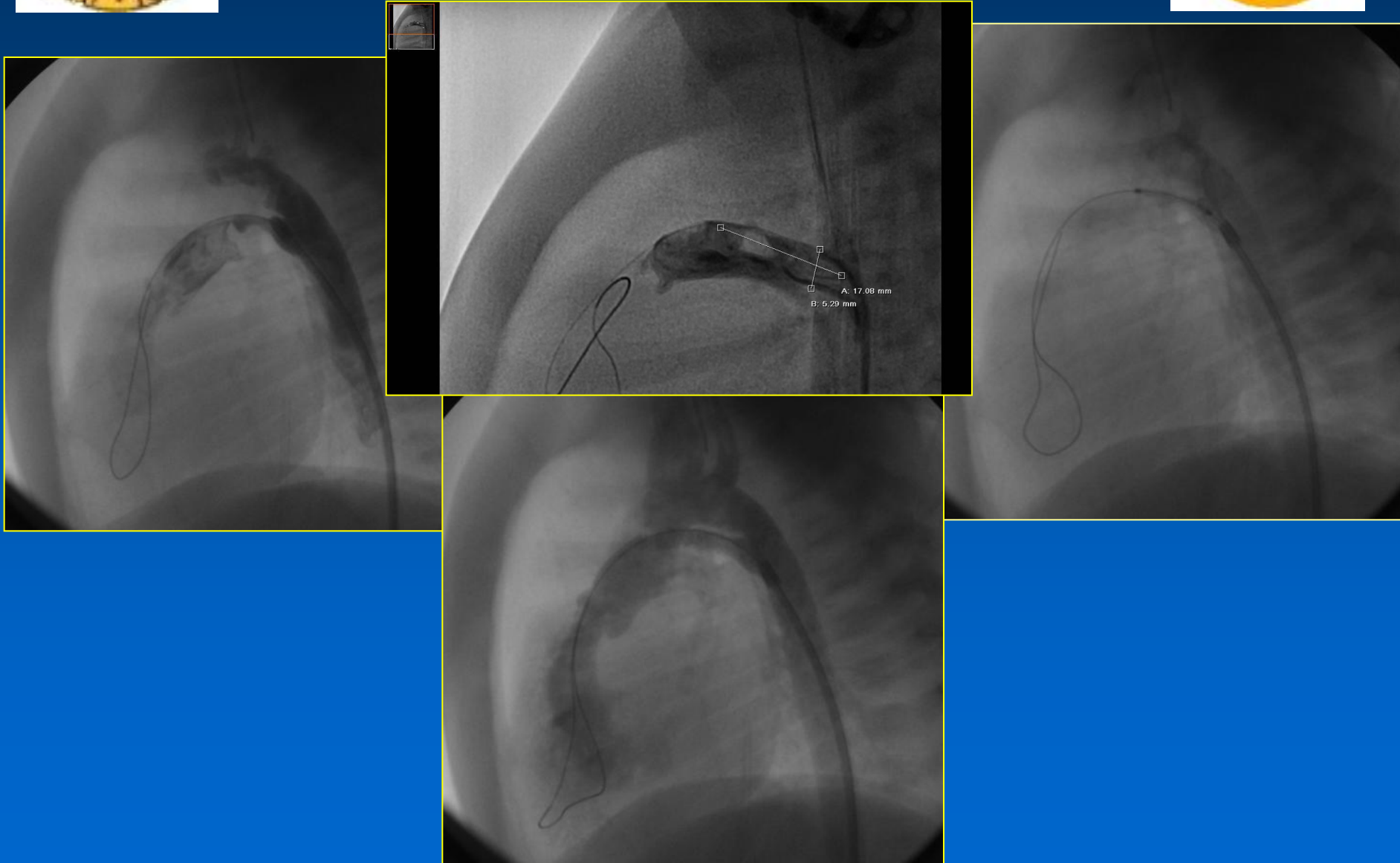


Results



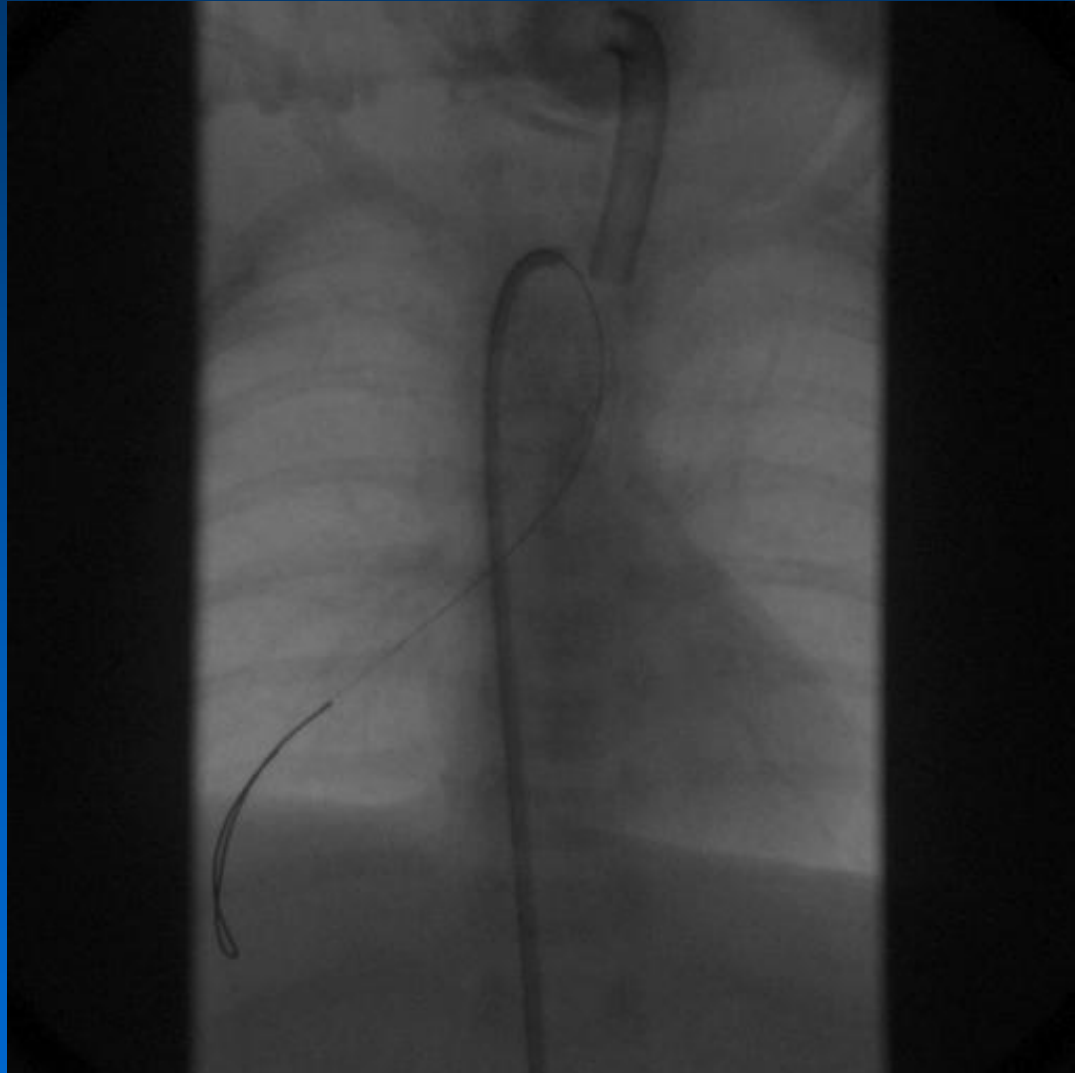


Results



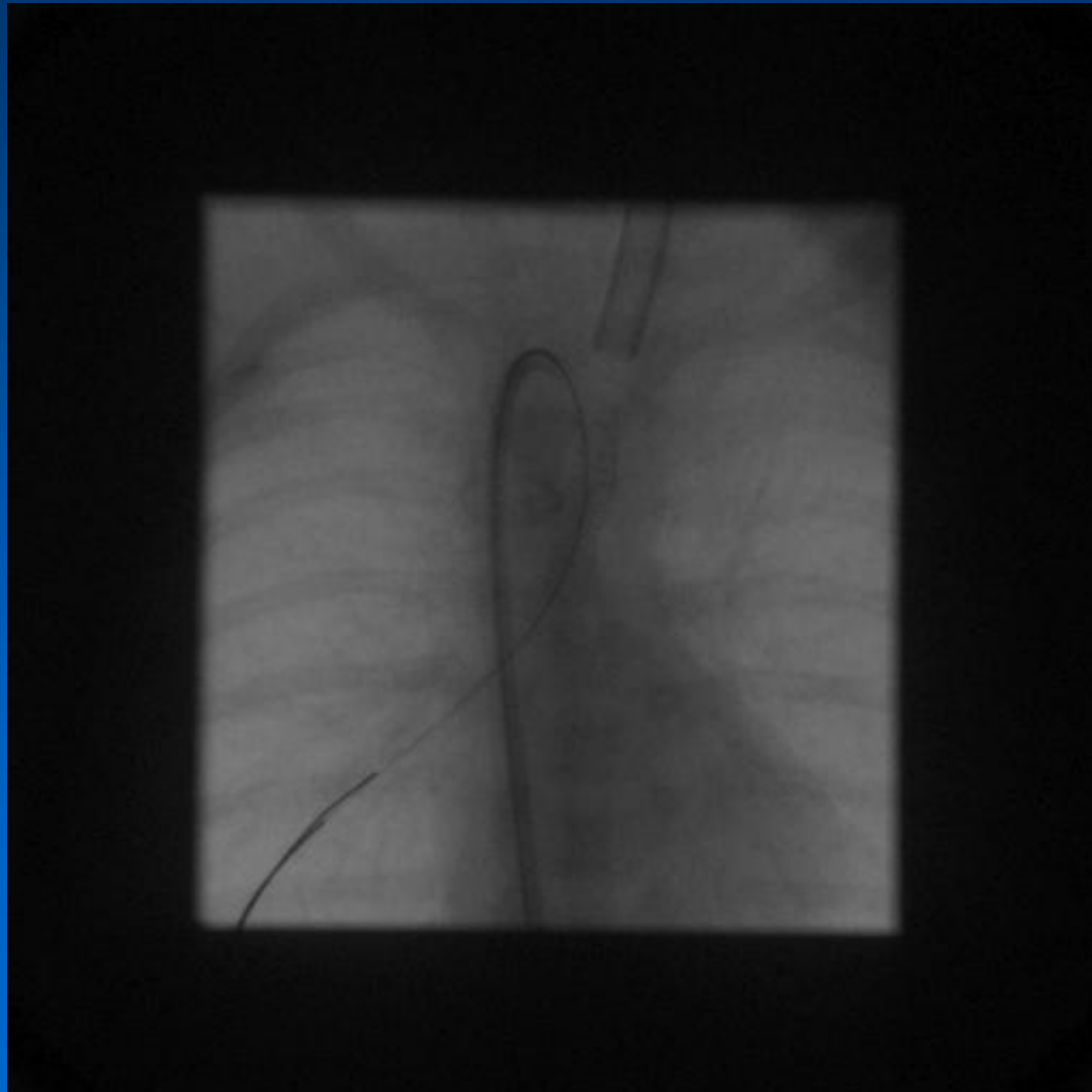


Results





Results





Results







Follow up data (85 patients)

Thirty-day mortality, n (%)	<u>4</u> (4.7%)
Need for further palliation, n (%)	10 (11,7 %)
Need for stent dilatation, n (%)	4 (4,7%)
No further surgery, n (%)	<u>27</u> (31,7%)
Corrective surgery or Glenn/Fontan, n (%)	<u>36</u> (42.3%)
Waiting for surgery, n (%)	<u>18</u> (21,1 %)
FU Mortality, n (%)	3 (3,5 %)



Comments



-  2 complications, both reversible
-  30 days mortality not procedure related
-  27 patients fully cured
-  7 patients showed at surgical inspection stent related PA.s stenosis



CONCLUSION



Stenting of the arterial duct is feasible, safe and effective palliation.



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