

**P-302**

**Stenting of Systemic to Pulmonary Artery Gore-Tex Shunts**

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**Introduction:** Creation of systemic to pulmonary artery shunts (SPAS) remains the initial palliative procedure in the management of a wide range of infants with complex cyanotic CHD. There are risks of in-shunt and anastomotic stenoses, ongoing shunt occlusion, and somatic outgrowth of shunts. Transcatheter stenting of stenosed shunts holds promise to address these problems.

**Methods:** Eighteen stenting procedures of stenosed SPAS were performed over an 8-year period. Median age was 10.8(1.5–152)months. Median weight was 8.1(3.2-30.3)kg. All had placement of a pre-mounted coronary stent which from 2007 onwards was routinely chosen to be larger than the original shunt size.

**Results:** Twenty-four stents were placed to address occlusion, stenosis or uniformly small SPAS at a median interval of 7.9(0.3-81) months post surgery. Stent diameter chosen was a median of 114(100-133)% of original shunt size. Procedure time, including diagnostic study, was 96(66-239) min and dose exposure 13(1.2-77.0) Gy<sub>cm</sub><sup>2</sup>. Arterial saturations increased from a median 70(55-79)% to 82(75-85)% post-stenting [p<0.001]. Minimal shunt diameter increased from a median of 2.3(1.0-2.7)mm to 4.3(4.0-6.0)mm [p<0.001]. There was one procedural death due to shunt thrombosis. One patient died 36 hours post-procedure from cardio-respiratory arrest, with a patent shunt on ultrasound. There was one neurological insult following stent re-canalization of an occluded shunt but there was no neurological deficit seen during follow up.

**Conclusion:** Stenting of stenosed or small SPASs is a versatile and effective technique to address in-stent and anastomotic stenosis and to increase stent diameter and resultant pulmonary blood flow, thereby delaying further surgery.