**PW1-7**

# Does presence of ventricular septal defect influence survival after arterial switch operation for transposition of the great arteries?

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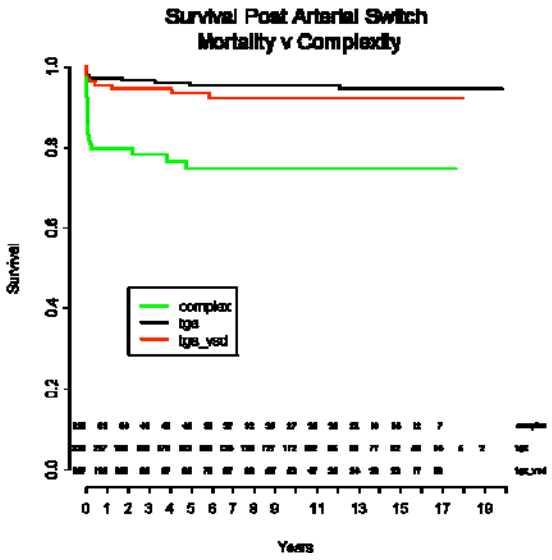
Introduction
The arterial switch operation (ASO) is well established as the basis for the operative treatment for infants with transposition of the great arteries (TGA). There is a broad range of morphological variation and therefore complexity of operative repair required for those infants with TGA. Risk scoring systems suggest operations for TGA with intact ventricular septum (TGA-IVS) attract a lower risk score than operations for TGA with ventricular septal defect (TGA-VSD) and operations for TGA with increasingly complex morphological variants. This long-term follow-up study was undertaken to examine the impact of complexity on survival after ASO.

Methods
Between 1988 and 2010, 613 infants (71% male, median age 8 days (IQ range 6-17 days)) underwent ASO for TGA at a single institution. For analysis, the patients were classified into three groups according to morphology, and therefore the surgical strategy used for repair: TGA-IVS (n=326), TGA-VSD (n=167), or TGA with complex anatomy i.e. other associated cardiovascular lesions (Complex, n=120). Infants with variants of TGA that did not undergo ASO were not included.

Results
Follow-up was 99.7% complete. Overall 30-day survival was 94.1%. Survival for those infants with TGA-IVS was 97.8% at 30 days, 95.5% at 5 years and 95.5% at 10 years. Survival for those infants with TGA-VSD was 96.9% at 30 days, 93.4% at 5 years and 92.1% at 10 years. Survival for those infants classified as Complex was 92.4% at 30 days, 74.7% at 5 years and 74.7% at 10 years. There was no significant difference in survival between those infants with TGA-IVS and TGA-VSD (p=0.3), although those infants in the Complex group exhibited poorer survival than the other 2 groups (Figure 1, p< 0.001).




Conclusion
Similar long-term survival can be achieved after ASO for TGA in those infants with intact ventricular septa or those with ventricular septal defects. However, infants with more complex anatomy continue to present a higher risk in the longer term.