

**Cyanosis due to right-to-left interatrial shunt without pulmonary artery hypertension.
Transcatheter occlusion in 63 consecutive patients.**

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Interatrial right-to-left shunt responsible of hypoxemia may have a significant impact on exercise tolerance. We report here one centre experience in transcatheter correction of such disease.

From August 1995 to 2009, 63 consecutive patients (37 females and 26 males, mean age 54 ± 24 years), underwent transcatheter closure of interatrial RL shunt because of cyanosis and shortness of breath at exercise. Associated malformations were complex cyanotic heart disease ($n = 4$), Ebstein anomaly ($n = 1$), RV hypoplasia ($n = 1$), pectus excavatum ($n = 2$), aortic aneurysm ($n = 1$). Ten pts had a past history of stroke. A real platypnea-orthodeoxia syndrome was noticed in only 17 pts.

Majority of patients had cardiac catheterization under local anaesthesia with a sole fluoroscopic control. None of them had pulmonary artery hypertension. Transcatheter closure was performed with a Sideris device ($n = 10$), a PFO Amplatzer occluder ($n = 40$), an ASD Amplatzer occluder ($n = 8$), a Cardioseal device ($n = 3$), a VSD Amplatzer occluder ($n = 2$). Device implantation succeeded in all but two (1 Sideris and 1 Cardioseal device). The fluoroscopic time was 12 ± 8 minutes.

All patients had better clinical tolerance after closure with an oxygen saturation $> 92\%$. All underwent serial echocardiographic follow-up including contrast study. One month after implantation, no shunt was noticed in all but 6 pts (tiny RL shunt). In 5 of these remaining pts, the 6-month control did not show any residual shunting.

Transcatheter closure of interatrial RL shunt responsible of cyanosis is an effective and a safe method. Many devices using a double disk can be employed and provide usually excellent results. The classic platypnea-orthodeoxia syndrome is infrequent and observed in about 25 % of this population.