

**Long- term outcome of ALCAPA. A single centre experience.**

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**Objectives:** To evaluate a single centre's experience of the management and long term outcome of anomalous origin of left coronary artery from pulmonary artery (ALCAPA).

**Methods:** Retrospective analysis of the case notes from September 1990 to October 2010.

**Results:** Total 25 patients (6 male, 19 female) had a diagnosis of ALCAPA with following demographics

	<b>Median</b>	<b>Range</b>	
<b>Age at repair</b>	5.50	(1.80 - 101.90)	Months
<b>Weight</b>	5.81	(3.99 - 30.80)	Kg
<b>Bypass time</b>	93.00	(38 - 351)	Minutes
<b>Cross clamp</b>	48.50	(33 - 97)	Minutes
<b>Hospital stay</b>	12.50	(6 - 87)	Days

At the time of presentation, 20 patients had moderate to severe impairment of left ventricular function with a median fractional shortening (FS) of 12% (range 5%-32%) and 15 patients had moderate to severe mitral regurgitation. Surgery was performed immediately on diagnosis with coronary re-implantation in 15 patients and Takeuchi repair in 9 patients and 4 patients needing mitral valve repair.

Long term follow up data is available for 20 patients. The median duration of postoperative follow up was 72 (range 0.5 to 214) months. All 20/20 patients are alive with 100% survival rate. At last follow up, 19/20 patients were asymptomatic, the left ventricular function was normal in 17 patients, mildly impaired in 2 patients and severely impaired in 1 patient (median FS of 35% (range of 23% to 43%)). Significant mitral regurgitation was present in only 2 patients. One patient who had Takeuchi tunnel had balloon dilation of pulmonary trunk, 2 patients with Takeuchi tunnel and one patient in direct implantation group had restenosis at the origin of left coronary artery which were dealt surgically.

**Conclusion:** Surgical repair of ALCAPA has got good long-term results with low rate of mortality and re-intervention. The ventricular dysfunction and mitral regurgitation usually gets better with reperfusion.