

TEMPORAL TRENDS OF EXTRACORPOREAL LIFE SUPPORT

FOR POSTCARDIOTOMY CARDIOGENIC SHOCK

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OBJECTIVE

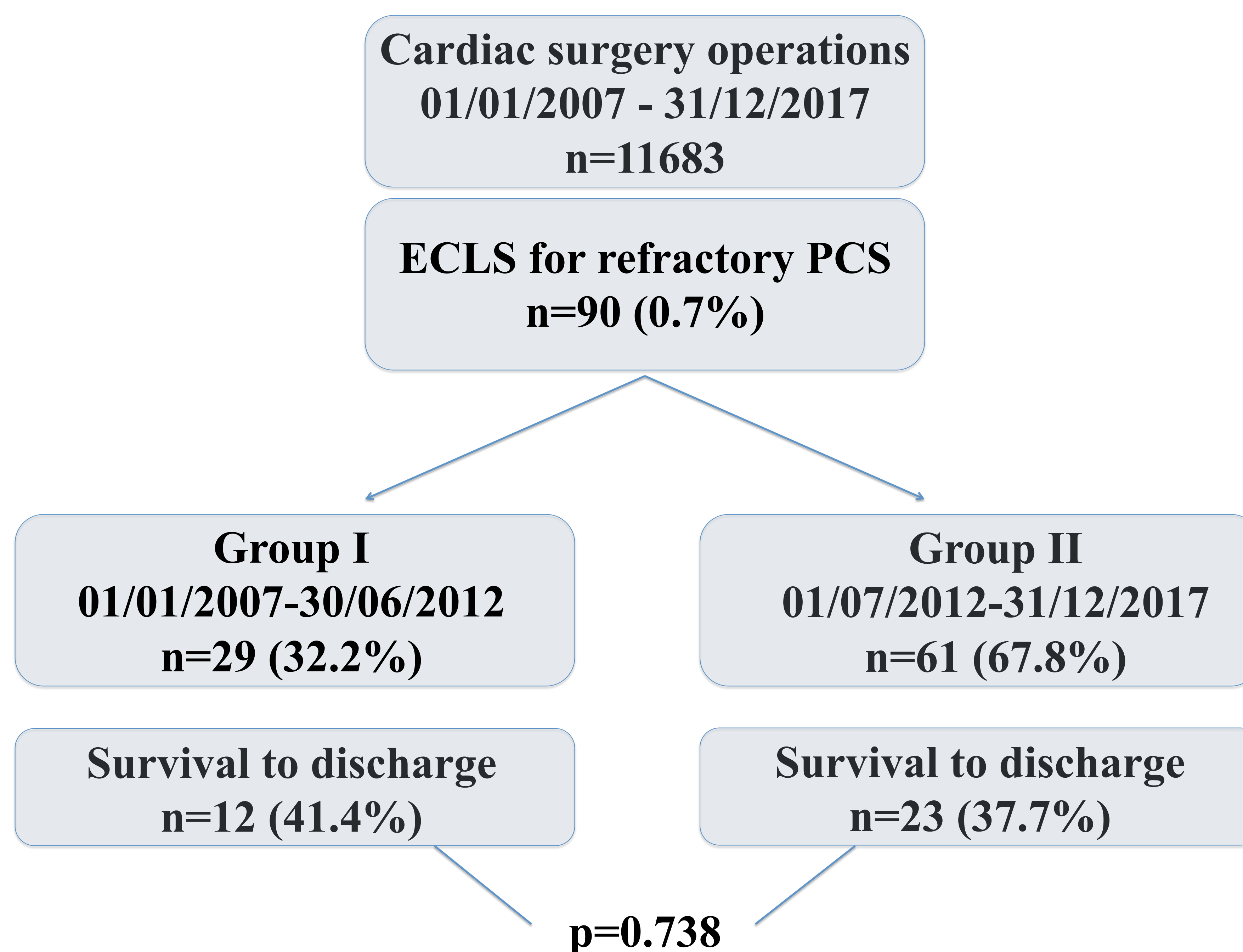
Postcardiotomy cardiogenic shock (PCS) involves 1% of open-heart surgical interventions. Extracorporeal life support (ECLS) may be necessary in refractory PCS unresponsive to maximal medical treatment. We reviewed our institution's experience and analysed the temporal outcomes of ECLS for PCS.

METHODS

We performed an observational analysis of our prospective database. Patients were divided into two groups according to the period of ECLS implantation: Group I = from January 2007 to June 2012, Group II = from July 2012 to December 2017. The primary endpoint was survival to hospital discharge.

RESULTS

Of the 11683 patients undergoing a cardiac surgery operation between January 2007 and December 2017, 90 (0.7%) required ECLS for PCS (Group I n=29, 32%; Group II n=61, 68%; mean age 57.5 years, male sex 62%). Preoperative characteristics were comparable between both groups. Group II showed a significantly higher proportion of miscellaneous cardiac surgery operations (23 vs. 3%, p=0.031). Cross-clamping and cardiopulmonary bypass times were significantly shorter in Group II (85.4 vs. 114.2 minutes, p=0.023 and 135.2 vs. 184.2 minutes, p=0.022, respectively). Successful weaning from ECLS was accomplished in 45 (50%) patients (Group I=52% vs. Group II=49%, p=0.822) after a mean support of 6.4 days. Thirty-five (39%) patients survived to hospital discharge (Group I=41% vs. Group II=38%, p=0.738).



CONCLUSIONS

Refractory PCS is still a major clinical concern with a high mortality rate. ECLS yields an encouraging survival to hospital discharge. ECLS for refractory PCS exhibited stable survival rates and clinical outcomes over an 11-year period.