**Congestive Heart Failure**

**OP-096**

The Short-Term Outcomes of Mitraclip Implantation: Single-Center Experience in Turkey

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**Background:** The aim of this study was to evaluate the procedural success and early outcomes of MitraClip implantation in our clinic. All patients had symptomatic severe functional mitral regurgitation with high surgical risk or were judged to be inoperable by heart team.

**Results:** The success of the procedure was 93.33%. We have successfully implanted MitraClip device to all patients except one. One clip was implanted in 9 (64.28%) patients, and 5 (35.71%) patients were treated with 2 clips. The mean procedure time was 183.84±80.96 minutes (range, 90–300 minutes), with a mean septal puncture time of 36.15±32.09 minutes. Following the procedure, severity of the mitral regurgitation was decreased average 2.10±0.48 grade. Average functional status of the patients improved from NYHA class 3.86±0.35 to 2.58±0.79 at 1 month follow up. Their 6-minute walking distances improved from 276.16±90 minutes to 300 minutes, with a mean septal puncture flow, intracorporeal left ventricular device implantation was performed between December 2010 and May 2013 for 64 cases with an age average of 47.83. For 56 cases HeartWare and for 8 cases HeartMate II were used. Patients were in class 2 (clinical deterioration while on inotropes), 3 (stable but inotrope dependent) and 4 (resting symptoms with oral therapy) according to INTERMACS (The Interagency Registry for Mechanically Assisted Circulatory Support) classification. While the ischemic etiology rate was 28.15%, dilated cardiomyopathy was the etiology for the majority of the patients. In % 34.37 of the patients there was relative contraindication because of clinical situations like fixed pulmonary hypertension, diabetes with end organ damage and obesity.

**Results:** In-hospital mortality rate was 10.95% with 7 patients. Extracorporeal membrane oxygenator system was needed for transient right ventricular failure in 3 cases. The most common cause of mortality was multiorgan failure and sepsis due to right ventricular failure. Preoperative cardiogenic shock (INTERMACS 1) was found risk factor for mortality. In long term follow up, 5 cases were bridged to transplantation, three cases were lost (2 intracerebral hemorrhage, 1 pancreatic cancer). Except 1 transient ischemic attack, there was no thromboembolic complication. there were 3 device thrombosis, which of two were treated completely with intraventricular thrombolysis therapy under scopy and one was treated with surgical pump change. The remaining patients still on support are stable and asymptomatic.

**Discussion:** With the improvements of new generation support systems, outcome of these devices are changing for the better day by day and the new generation devices are becoming an alternative therapy competing with heart failure in many hopeless circumstances.

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Ventricular Support Systems for End Stage Heart Failure Patients: Which patient, When?

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**Introduction:** The improvements of medical and surgical therapy for heart failure have been increasing especially in the last two decades. With these improvements, the patient profile is changing continuously with an increasing number. Ventricular support systems have been marked a new era in heart failure therapy, a chance of survival until transplantation and a new hope for the patients that are unsuitable for transplantation. The optimal timing of implantation seems to be the most important issue for postoperative success. With this paper, we report our data of ventricular support system implantation timing for heart failure patients and its effects on outcome.

**Material - Method:** total of 118 heart failure patients which were implanted long term support systems in our institution between 2008 – 2013 were included. The clinical condition of the patients were evaluated with INTERMACS (The Interagency Registry for Mechanically Assisted Circulatory Support) classification. Accordingly, prior to operation, 20.33% of the patients were in INTERMACS 1 (cardiogenic shock), 27.96% were in INTERMACS 2 (clinical deterioration on inotropes), 48.30% were in INTERMACS 3 (inotrope dependency), 2.54% were in INTERMACS 4 (symptoms in resting despite oral therapy).

**Results:** In-hospital mortality of patients in INTERMACS 1 were 37.5%, in INTERMACS 2 were 18.18%, in INTERMACS 3 were 8.77%, while there was no early mortality in INTERMACS 4 patients.

**Discussion:** As the clinical deterioration of end-stage heart failure patients deepens, in-hospital mortalities rates rise. For this reason, the referral of these patients to transplantation centers before the development of biventricular heart failure is crucial.