Title: Good Prognosis of the Japanese Heart Transplant Recipients

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OE-154
Cardiac Sarcoïdosis in Japanese Heart Transplant Patients
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Purpose: Heart transplantation for cardiac sarcoidosis patients had been limited because of concerns about recurrence of sarcoidosis in the cardiac allograft. It is well-known that the number cardiac sarcoidosis is larger in Japanese, where-as the tendencies of requiring heart transplantation and outcomes of post-transplant course have been unknown. We sought to review the morbidity of sarcoidosis in heart transplant recipients and compared their outcomes with those of without sarcoidosis.

Methods and Materials: We retrospectively reviewed our single center experience of heart transplantation to elucidate the morbidity and outcome of Japanese cardiac sarcoidosis patients.

Results: Between January 1997 and August 2007, 22 patients; 16 male and 6 female, underwent heart transplantation due to end-stage heart failure, two of them (9.1%) had the diagnosis of cardiac sarcoidosis at the time of transplantation. The morbidity of cardiac sarcoidosis in recipients in Japan is significantly higher than that of the United Network for Organ Sharing Registry report in 2007 (9.1% vs. 0.17%, p<0.0001). All recipients were under immunosuppressant therapy with cyclosporine, mycophenolate mofetil, and prednisolone, and showed no biopsy-proven rejection, recurrence or involvement of sarcoidosis of any other organ for 1.5-2.5 years after transplantation.

Conclusions: Mid-term outcomes of post-transplant course of cardiac sarcoidosis were satisfactory. The diagnosis of cardiac sarcoidosis should not be the factor for patients’ disqualification as potential transplant candidates.

OE-155
Reduced Left Ventricular Torsion with Two-Dimensional Speckle Tracking Echocardiography would Predict Acute Rejection in Heart Transplant Recipients.
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Background: Invasive screenings for acute rejection (AR) by endomyocardial biopsy (EMB) in heart transplant (HTx) recipients are standard procedures. Abnormal ventricular systolic torsion has been reported to associate with AR in HTx recipients. Speckle tracking echocardiography (STE) may provide a powerful means of assessing left ventricular (LV) torsion (LVtorn). Objectives: We investigated the utility of LVtorn as a noninvasive method for evaluation of AR in HTx recipients. Methods: In 12 HTx patients, 89 EMBs were obtained between 1 month and 6.6 years posttransplantation. The echocardiograms were recorded within 2 hours from EBM performed. The apical and basal short-axis rotations were assessed with STE. The LVtorn was defined as the net difference between rotation angles in the two short-axis planes normalized for LV longitudinal length. Results: The LVtorn was 6.0 ± 0.5 vs. 10.0 ± 0.5 degree, p<0.001, according to International Society of Heart and Lung Transplantation criteria. The LVtorn was weakly correlated with pulmonary artery wedge pressure and right ventricular end-diastolic pressure(r=0.44, p<0.05; r=0.39, p<0.05, respectively). Conclusions: The LVtorn derived from STE could be of clinical value in non-invasive evaluation for AR. The correlation between LVtorn and ventricular diastolic indexes may indicate that the LVtorn would reflect myocardial abnormality associated with AR in HTx recipients.

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Good Prognosis of the Japanese Heart Transplant Recipients - A Statement from the Japanese Circulation Society Heart Transplant Committee -
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BACKGROUND: The heart transplant (HTP) is recognized as a worldwide therapy superior from aspects of both QOL and economic efficiency for the severe heart failure patient. However, in Japan, only several HTP is not carried out in the year. Japanese Circulation Society Heart Transplant Committee have evaluated an adaptation for the application of about 400 HTP recipient candidate patients since 1997. Purpose of this study is to determine the prognosis of the HTP recipient patient by a questionnaire. METHODS: The subjects are 386 patients who had application of the HTP patient in July, 2006 from April, 1997. We dispatched the questionnaire about the condition of the patient at July 1, 2006 (follow up rate: 98.4%). RESULTS: 72.0% of the whole cases were DCM. In patients with NYHA IV, the survival rate was 52% in 1 year, 37% in 2 years, and 27% in 3 years. Only 28% of the applicant were performed HTP, and only 36% of HTP patients were domestic. The prognosis of both overseas and domestic HTP was good. 97% of the patient who underwent HTP were ambulatory care patients, and 67% returned to their works. CONCLUSIONS: Because HTP is a therapy to improve the prognosis of the patient with severe heart failure dramatically, the revision of Organ Transplant Law is expected immediately.

OE-157
Clinical course and outcome of heart transplant recipients: single center's experience at National Cardiovascular Center
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Background: A total number of 48 cases of heart transplantation (HTx) were performed in Japan since 1999. However, the clinical course of these patients was not described in detail. Methods. Twenty-two HTx recipients transplanted at our institute (17 male and 5 female, observation period: 2 to 99 months) were retrospectively reviewed. Results. The mean age at HTx was 40.7 ± 11.5 years. The mean periods on the waiting list was 866.7 ± 714.2 days. Nineteen patients were supported by left ventricular assist device for 704.9 ± 386.6 days, and the maximum supporting periods was 1444 days. Survival rate was 95.5% at 8.4 years, although one patient died after 4.3 year posttransplant due to systemic infections. Treatment-dealing rejections occurred 2.8% in a total of 322 cardiac biopsies, and all of which were successfully treated. Eight patients (36.3%) developed transplant coronary artery disease, 4 patients (18.2%) developed hypertension, 2 patients (9.1%) developed diabetes, one patient (4.5%) developed hyperlipidemia. Renal insufficiency was seen in 2 patients (9.1%). No malignancy was seen in our patients. Conclusions. The survival rate was better and the incidence of posttransplant complications was lower than those in international society heart lung transplant registry. Long-term survivors after cardiac transplantation are increasing even in Japan. Not only the cardiac function but also maintenance of other organ function should be required in post transplanted care.