

Rehabilitation of Combined Heart-liver transplantation recipient : A Case report

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Objective

Combined heart-liver transplantation (CHLT) is a lifesaving procedure for the patients suffering from end-stage heart and liver disease. However, the experience with CHLT is small in Korea because of high-risks during intervention and difficulty of surgical techniques. Acceptance of CHLT grows since additional CHLT indications have been expanded. Despite successful transplantation, it is easy to fall into risk for disability after surgery due to disease severity, side effects of immunosuppressive medication, and cardiovascular deconditioning. Postoperative rehabilitation is essential to prevent deconditioning, but there is little data regarding rehabilitation of CHLT recipients. It is important to share clinical experience for potential cases in the future. We here report a single case with rehabilitation of CHLT recipient in order to help in management after CHLT.

Case

47 years-old female patient who suffered from mitral valve stenosis, tricuspid valve regurgitation, atrial fibrillation, chronic heart failure, and cardiac cirrhosis had dyspnea, so she had difficulty on walking. On September, 26th, 2016, Cardiac arrest developed and ECMO care was taken. Ischemic change on right leg developed during ECMO care. CHLT was performed at Samsung medical center on September, 23th, 2016. After operation, she underwent deconditioning and had a seizure attack on December, 6th, 2016. Brain MRI presented small amount of SDH in Lt. frontal convexity. She needed ICU care more than 2month, and comprehensive rehabilitation for weakened limb, and decreased heart function. Patient was transferred to Kyungpook national university hospital(KNUH) for rehabilitation. After receiving rehabilitation treatment at KNUH from March 17th to April 11th, 2017, she was transferred to Chilgok kyungpook national university hospital on April, 12th. She was hospitalized until June, 9th, 2017. During hospital stay, lower extremity strengthening, sitting balance training, and physical therapy and occupational therapy were performed twice a day. T-cannula was removed at April, 10th. Currently, outpatient treatment is ongoing. Initially, K-MBI was 13 at Samsung medical center on March 3rd, 2017. After transfer to KNUH, initial Berg balance scale (BBS) was 3 and K-MBI was 30 on March 21th, 2017. After 11 weeks of hospitalized rehabilitation, she could walk with minimal assist. BBS and K-MBI improved to 37 and 57 respectively. The patient was discharged on June 9th, 2017. On January, 8th, 2018, about 15 months after surgery, the follow up test showed BBS 44 and K-MBI 92. Timed up and go, 10m gait speed, and 6min

walk test was 12.44s, 13.42s, and 200m respectively. Now she can walk independently and is receiving outpatient treatment.

Discussion

CHLT recipients can easily fall in to deconditioning and be disabled, considering the severity of underlying disease and complexity of procedure. Postoperative rehabilitation would make better prognosis and recover functional ability.