Updated Treatment Strategy for Advanced Heart Failure in Japan

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The prognosis of heart transplant (HTx) recipients and patients implanted with left ventricular assist device (LVAD) is extremely good in Japan. However, the issue of donor shortage is quite serious. In recent years, while there are around 200 patients newly registered the HTx waiting list, only 50 to 60 HTx are performed per year. As a result, the waiting period for newly registered patients is estimated to 6 to 7 years. Implantable LVAD (iLVAD) was reimbursed only for patients waiting for HTx in the past, whereas destination therapy (DT) was reimbursed in Japan this year. DT made it possible for patients who are not eligible for HTx due to age or comorbidities to be implanted with LVADs. Even though, bridge to recovery strategy is important in Japan, where there are few opportunities to receive a HTx. Of 230 patients who underwent iLVAD implantation at the University of Tokyo Hospital, 10 patients(7.6%) were able to wean from iLVAD with recovery of their own cardiac function. The INTERMACS recovery score was high (≧7) in all cases. In cases where wean from iLVAD can be expected, it is important to properly administer drug treatment for recovery of cardiac function. We previously reported that in patients with low cumulative preoperative β blocker dose, recovery of cardiac function could be expected by sufficient titration of β blocker after LVAD implantation. Nowadays, new therapeutic agents for heart failure such as ivabradine are available one after another. We recently experienced a case successfully weaned from LVAD by administration of ivabradine. It is expected that the number of cases of LVAD withdrawal will increase by using these new drugs in the future. The four drugs, β blocker and MRA plus sacubitril valsartan and SGLT2 inhibitor, are called “fantastic four”. Recently, early combination of these drugs is recognized to be efficacious in the treatment of heart failure. We are currently trying to increase the numbers of cases of advanced heart failure that can be managed without the need for LVAD and HTx through aggressive drug therapy including these new drugs.