

Republic of Korea- Health Insurance Review & Assessment Service (HIRA)

An analysis of claims data for left ventricular assist devices in South Korea based on the nationwide data from the Health Insurance Review and Assessment services

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< BACKGROUNDS >

LVAD has been included in the National Health Insurance (NHI) as a benefit for some hospitals that meet the manpower and facility standards from September 28, 2018 in Korea.

< OBJECTIVES >

The purpose of this study is to analyze the status of claims of implanted left ventricular assist devices after listing in the NHI and to use it as a basic data for future policy-making.

< METHODS >

We used the National Health Insurance Claims Data (NHICD) for the period 2018–2019, including all reimbursed information on LVADs. We performed analyses to identify the characteristics of age and sickness of patients with LVAD stratified by gender, and the costs after listing health insurance were divided by the insurance cost, copayment, and the treatment material cost. Data extraction and statistical analyses were conducted with Statistical Analysis Software (SAS), Enterprise Guide Version 4.3 (SAS Institute, Cary, NC, USA).

< RESULTS >

A total of 62 patients were treated for an LVAD during the year following September 28, 2018. As of November 2019, six patients (9.7%) had died among the 62 patients who received the procedure, with the death of the six taking an average of about 100 days after the end of the procedure. The proportion of male patients was significantly higher than that of females, with male patients accounting for 77.4% (n=48) of the total number of subjects. According to age, the mean ages of male and female patients were 59.6 years and 64.3 years, respectively, so the mean age of female patients was higher than that of male patients. The proportion of patients over 60 years old was the highest with 64.5%. Furthermore, the number of patients in both male and female groups increased with age. By type of health insurance coverage, health insurance patients represented more than 90% of both the male and the female groups. Analysis of major illnesses that patients claimed when receiving LVAD, showed that dilated cardiomyopathy was the highest in males (43%) and females (57%), followed by 17.7% of unspecified heart failures. In addition, an analysis of the treatment materials used in the procedure showed that HeartWare LVADs were used for 88.7% of the cases and HeartMate II for 11.3%. In terms of cost, the patient's average out-of-pocket charges were 7,336 dollars per patient and the total cost was about 156,657 dollars.

< CONCLUSIONS >

If medical feasibility is guaranteed, the foundation has been well laid for minimizing financial expenditures and expanding coverage by limiting it to some institutions for having LVAD and operating a pre-approval system to select patients in Korea. It is necessary to continuously analyze the status of claims data in order for the data to be used as a basis for policy-making in the future.