Drug Use Study of Heparin using Japanese Claim Data of Inpatients
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Abstract

Methods: The Japanese claim data of inpatients called Diagnosis Procedure Combination (DPC) data was used. The owner of these data, a DPC system vendor, performed all analysis by following the protocol prepared by PMDA. The base population included about 1.5 million of patients hospitalized in 128 hospitals during July 2010 to December 2012. Two targeted populations were defined by prescription of UF or LMW Heparin given within 7 days after lower limb surgery. Distribution of patient demographics, prescribed duration after surgery, and the incidence proportion of HIT were calculated.

Results: Among 1.5 million of the base population, 6,157 patients were prescribed UF Heparin and 3,596 patients were prescribed LMW Heparin within 7 days after lower limb surgery. Their median ages were 76 years and 77 years in the patients prescribed UF and LMW Heparin, respectively. As to prescribed durations, 4,143 patients (67.3%) were prescribed UF Heparin for only one day. On the other hand, 3,515 patients (97.7%) were prescribed LMW Heparin for 2-14 days. The incidence proportions of HIT were 0.19% for UF Heparin and 0.08% for LMW Heparin, which were lower than those reported in previous studies.

Conclusions: This study investigated the utilization of UF and LMW Heparin among patients hospitalized for lower limb surgery using claim data. Although their prescribed durations were different, there was no much difference in the incidence proportion of HIT between UF and LMW Heparin.

Table1. Background characteristics in study populations

Table2. The total days of prescriptions

Table3. The numbers and percentages of patients developed HIT

Limitations of the study

* The case definition of HIT is not validated.
* The procedure data might not be fully collected in DPC data because the DPC data is comprehensively collected.

Conclusions

Although LMW Heparin was known to have lower risk of HIT than UF Heparin, there was not much difference in the incidence proportions of HIT between these two types of Heparin users in this study. There might be the misclassification of case or the lack of the procedure data.