The safety of catheter ablation of atrial fibrillation in elderly patients -analysis of the nationwide database in Japan, JROAD-DPC-

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Background: ‘Age’ is one of the major concerns and determinants of the indications for catheter ablation (CA) of atrial fibrillation (AF). There are little safety data on CA of AF according to the age. This study aimed to assess the safety of CA in elderly patients undergoing CA of AF.

Methods and Results: We investigated the complication rate of CA of AF for the different age groups (<60 years, 60-65, 65-70, 70-75, 75-80, 80-85, and ≥85) by a nationwide database (Japanese Registry Of All cardiac and vascular Diseases [JROAD]-DPC). The JROAD-DPC included 73,296 patients (65±11 years, 52,883 men) who underwent CA of AF from 516 hospitals in Japan. Aged patients had more comorbidities and a significantly increased CHADS2 score and higher rate of female according to a higher age. The overall complication rate was 2.6% and in-hospital mortality was 0.05%. By comparing each age group, complications occurred more frequently in higher aged groups. A multivariate adjusted hazard ratio revealed an increased age was independently and significantly associated with the overall complications (odds ratio was 1.25, 1.35, 1.72, 1.86, 2.76 and 3.13 respectively; reference <60 years).

Conclusions:The frequency of complications was significantly higher according to a higher age. We should take note of the indications and procedure for CA of AF in aged patients.