



IS LEFT ATRIAL APPENDAGE CLOSURE DEVICE SUITABLE FOR PATIENTS OF ATRIAL FIBRILLATION AND END-STAGE RENAL DISEASE

Sheng-Nan Chang,¹ Chin-Feng Tsai,² Ting-Tse Lin,³ Fu-Chun Chiu,¹ Li-Ting Ho,⁴ Pang-Shuo Huang,¹ Jien-Jiun Chen,¹ Yi-Chih Wang,⁴ Juey-Jen Hwang,⁴ Chia-Ti Tsai,⁴

¹ Division of Cardiology, Department of Internal Medicine, National Taiwan University Hospital Yun-Lin Branch, Dou-Liu City, Taiwan, ² School of Medicine, Chung Shan Medical University; Division of Cardiology, Department of Internal Medicine, Chung Shan Medical University Hospital, ³ Division of Cardiology, Department of Internal Medicine, National Taiwan University College of Medicine and Hospital Hsin-Chu Branch, Hsin-Chu City, Taiwan, ⁴ Division of Cardiology, Department of Internal Medicine, National Taiwan University Hospital, Taipei City, Taiwan

Background:

In atrial fibrillation (AF) patients with end stage renal disease (ESRD), oral anticoagulants are contraindicated, and the alternative treatment is the left atrial appendage closure device (LAACD). However, the efficacy for thromboembolic prevention of LAACD in those patients had been rarely reported in Asians. This was the first LAACD long-term study of AF patients undergoing dialysis in Asia.

Methods:

In this study, 310 patients (179 men) with mean age 71.3 ± 9.6 years and mean CHA2DS2-VASc 4.2 ± 1.8 had been consecutively included at multi-centres in Taiwan since Aug. 2013. The outcomes of 29 AF patients with ESRD under dialysis who underwent LAACD were compared to those without ESRD. Primary composite outcomes were any type of stroke, systemic embolization, and death.

Results:

Basically, there was no difference of mean CHADS-VASc score between those patients with ESRD and without ESRD (4.1 ± 1.8 vs. 4.6 ± 1.9 , $p=0.453$). After a mean follow-up of 38 ± 16 months, the composite endpoint was higher in patients with ESRD (hazard ratio 5.12 [1.4-18.6], $P=0.013$) compared to those without ESRD after LAACD therapy. The mortality was also higher in those with ESRD (hazard ratio 6.6 [1.1-39.7], $p=0.038$). The stroke rate was numerically higher in those with ESRD than those without ESRD, but not statistical significance (hazard ratio 3.2 [0.6-17.7], $P=0.183$). Additionally, ESRD was associated with device related thrombosis (DRT) (odds ratio 6.15, $p=0.047$).



Conclusion:

The long-term outcomes of LAACD therapy may be worse in AF patients undergoing dialysis. The possible reason may be the association of ESRD with DRT.

CSIEDUCATION