

Conclusions Navigation by CARTO-Merge, less difference of angle and distance between the ablation lesions and the actual PV ostia can be achieved, compared with the guidance of contrast PV angiography.

GW23-e0391

CARTO-MERGE CAN IMPROVE THE ABLATION ACCURACY FOR PULMONARY VEIN ISOLATION

doi:10.1136/heartjnl-2012-302920n.16

Songwen Chen, Gang chen, Ying Zhuge, Feng Zhang, Weidong Meng, Yiwen Yan, Shaowen Liu. *Department of Cardiology, Shanghai First People's Hospital, School of Medicine, Shanghai Jiao Tong University, Shanghai, China*

Objectives To quantify the superiority of performing AF ablation guided by CARTO-Merge.

Methods Forty-eight consecutive AF patients, with four discrete pulmonary veins (PVs), were enrolled. For the four separate PVs and the two ipsilateral PVs of each patient, three types of planes were defined respectively at the PV antrum. The fluoroscopy planes (FPs) were labelled in the CARTO under the guidance of contrast PVs angiography. After procedure, the ablation planes (APs) were defined with the ablation rings. The image planes (IPs) were labelled in the CT image.

Results The angle between the APs and the IPs was significantly smaller than that between the FPs and the IPs with regard to the left inferior PV planes (15.80 ± 7.64 vs 20.69 ± 13.91 , $p=0.040$) and the left superior PV planes (15.17 ± 7.20 vs 23.21 ± 12.97 , $p=0.001$). Moreover, compared to that between the FPs and the IPs, less difference of angle and distance between the APs and the IPs was demonstrated in the left PV planes (1.36 ± 1.27 mm vs 2.89 ± 2.49 mm, $p<0.001$; 13.91 ± 6.20 vs 30.52 ± 20.97 , $p<0.001$), the right inferior PV planes (2.58 ± 1.69 mm vs 3.51 ± 2.46 mm, $p<0.05$; 13.58 ± 8.01 vs 17.94 ± 8.89 , $p=0.014$), the right superior PV planes (2.10 ± 1.80 mm vs 3.47 ± 2.97 mm, $p=0.009$; 11.20 ± 6.75 vs 33.38 ± 15.86 , $p<0.001$) and the right PV planes (2.33 ± 1.71 mm vs 4.13 ± 3.47 mm, $p=0.002$; 13.27 ± 6.14 vs 26.40 ± 18.89 , $p<0.001$).