A multicenter prospective controlled study of catheter ablation for patient with paroxysmal supraventricular tachycardia with domestic radio frequency current ablation device.

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Introduction: To verify the efficacy and safety of domestic radio frequency device for catheter ablation of paroxysmal supraventricular tachycardia (PSVT).

Methods: From June 2016 to September 2017, 140 patients from 3 hospitals were enrolled into this multicenter prospective controlled study. The patients were allocated into experiment group (domestic device) and control group (foreign device) in equal number (70 vs 70). The experiment group ablated with OptimAblate® TM radio frequency current ablation device (MicroPort Shang Hai), while the control group used EP SHUTTLE device (Johnson & Johnson). The immediate ablation success rate and the incidence of adverse events were observed.

Result: Of the 70 patients in experiment group, 68 received ablation therapy and 67 in control group. Both groups achieved a 100% immediate success rate. The incidence of adverse events in experiment group were 20% (14/70) with 31.88% in control group (22/69). The difference between two groups didn't meet statistical significant. No severe adverse events had been reported and 1 adverse event was defined as “probably related” with the experiment device.

Conclusion: The domestic ablation device was as effective and safe as foreign device for PSVT treatment.