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## CLINICAL STUDY OF SINGLE-CATHETER RADIOFREQUENCY ABLATION IN TREATMENT OF REFRACTORY PREMATURE VENTRICULAR CONTRACTIONS

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**Objective** To evaluate the single-catheter radiofrequency ablation for treatment of refractory premature ventricular contractions after ablation, and assess the quality of life in patients with refractory premature ventricular contractions.

Methods 52 patients with refractory premature ventricular contractions were selected, including 28 males and 24 females, aged 14-62 years, with an average years of 36±14 years. The course of disease of ventricular premature was at range of 6 months to 28 years, including 42 cases of right ventricular outflow tract origin of ventricular premature, 3 cases of left ventricular outflow tract origin of ventricular premature, five cases of left posterior branch origin of ventricular premature and two cases of right ventricular anterior wall origin of ventricular premature. They underwent single-catheter pace mapping and excitement mapping to determine the ablation targets in the process of electrophysiological mapping. By preoperative and postoperative SF-36, we observed the general health (GH), physiological function (PF), role-physical (RP), bodily pain (BP), vitality (VT), social function (SF), role-emotional (RE) and mental health indicators (MH), and conduct scoring among patients after surgery.

**Results** Among 40 cases of successful ablation, 7 cases were improved, 5 cases were failure, 47 cases showed effective (90.4% of the total). The average operative time was  $(1.0\pm0.8)$  h, the x-ray exposure time was  $(12.6\pm6.4)$  min, the average discharge frequency was  $(4.8\pm2.0)$  times and the electrical impedance was 80–110 ohms. All patients were followed up after 1 week to 1 year, the patients didn't present serious complications related to radiofrequency ablation, and their overall quality of life improved significantly.

**Conclusion** Single-catheter radiofrequency ablation in treatment of refractory premature ventricular contractions were safe and effective, and could significantly improve patients' quality of life.