Catheter radiofrequency ablation for idiopathic ventricular arrhythmias

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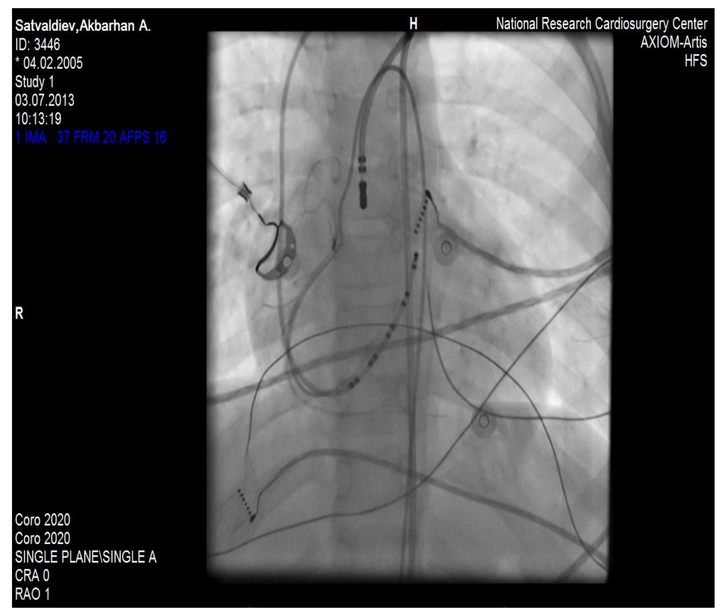
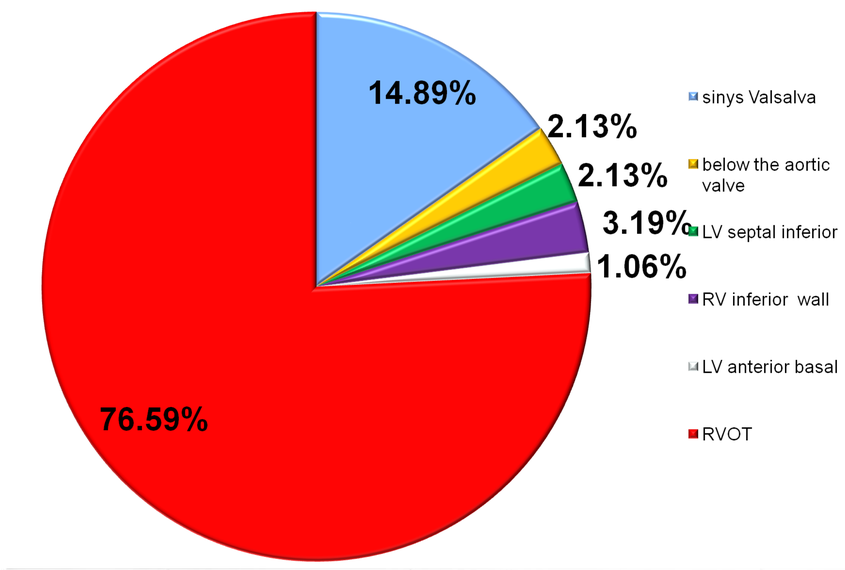
Objective

to study the results of surgical treatment of idiopathic ventricular arrhythmias.

Materials and methods

Since October 2011 we performed 94 radiofrequency ablations (RFA) for idiopathic ventricular arrhythmias in patients with symptomatic arrhythmias refractory to antiarrhythmic therapy. The mean age of patients was 36.8±5.0, male - 45 (45.5%) patients, female - 49 (54.5%). 74 (78.8%) - adult patients, 20 (21.2%) - pediatric patients. Electrophysiological study (EPS), RFA for ventricular premature beats arrhythmia was performed in 77 (72.4%) patients. EPS, RFA for ventricular tachycardia in 17 (27.6%) patients. All patients were followed after discharge and a follow-up examination made at 3 months.

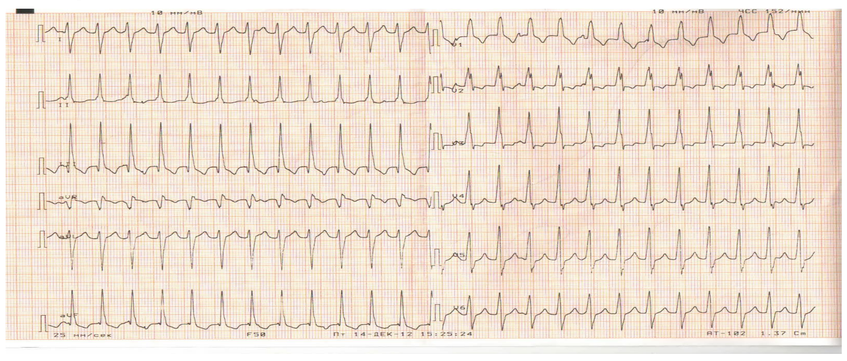


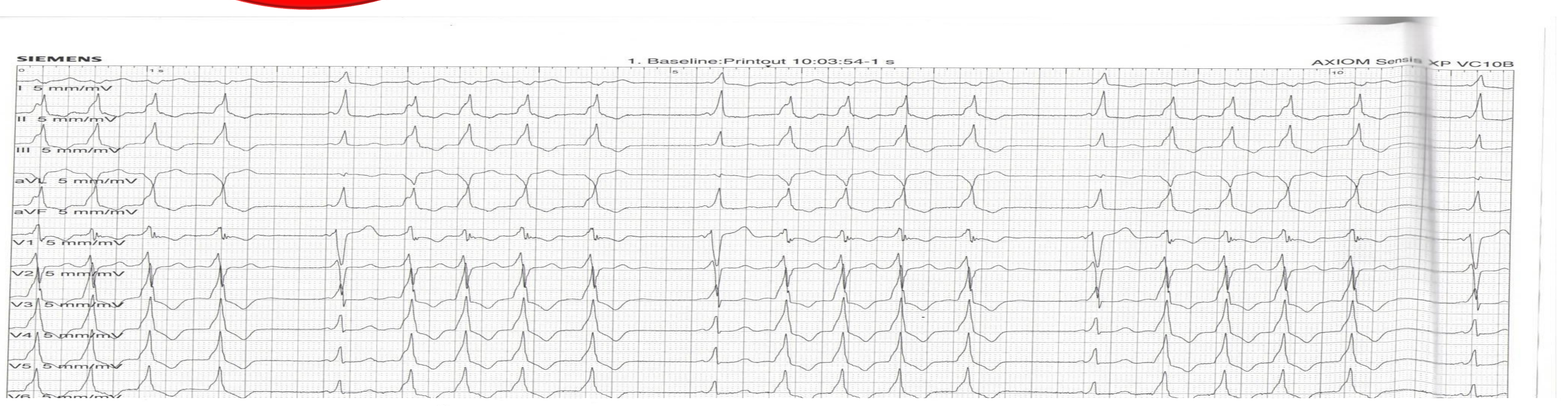


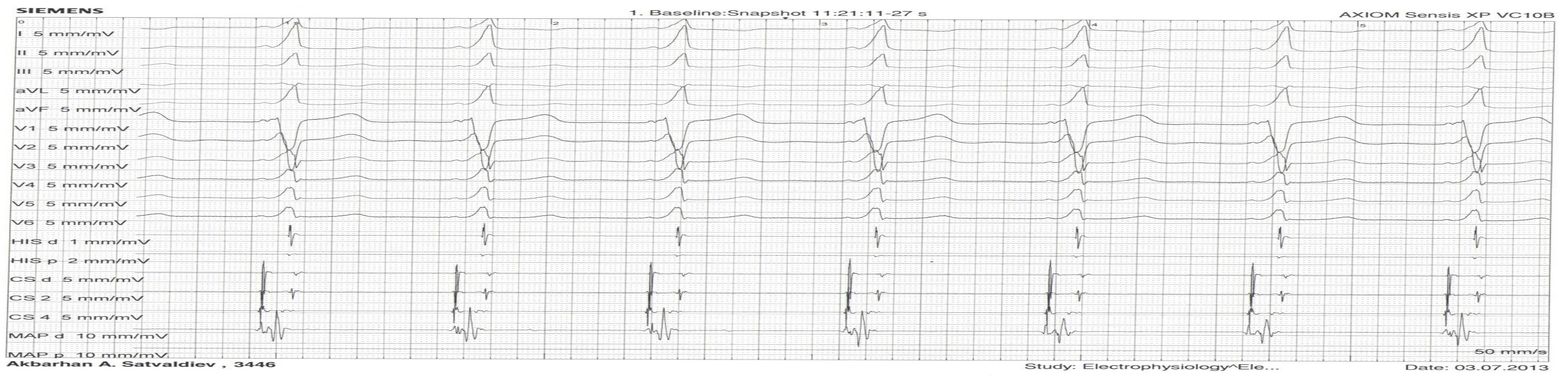
Results

72 (76.59%) patients had ectopic foci localized in the outflow of the right ventricle, 14 (14.89%) - in the outflow of the left ventricle, 2 (2.13%) patients - below the aortic valve, 2 (2.13%) patients - on septal inferior wall of the left ventricle, 3 (3.19%) patients - on inferior wall of the right ventricle, 1 (1.06%) patient - basal anterior wall of the left ventricle.

A follow-up examination included 31 (32.98%) patients performed surgical intervention for cardiac arrhythmias. 7 (7.44%) patients were hospitalized with recurrent arrhythmias: 1 (1.06%) patient had paroxysmal ventricular tachycardia, 6 (6.39%) patients had ventricular premature beats arrhythmia. The effect of RFA are reached at 92 (97.87%) patinents at the first ablation. In 2 (2.13%) patients were performed EPS, RFA of ectopic foci of ventricular arrhythmias hadf partial effect, antiarrhythmic therapy was prescribed. The Holter-ECG monitoring revealed no arrhythmia at these patients. Patients were followed during 16±6 months. Efficiency of our procedure 92,56%.

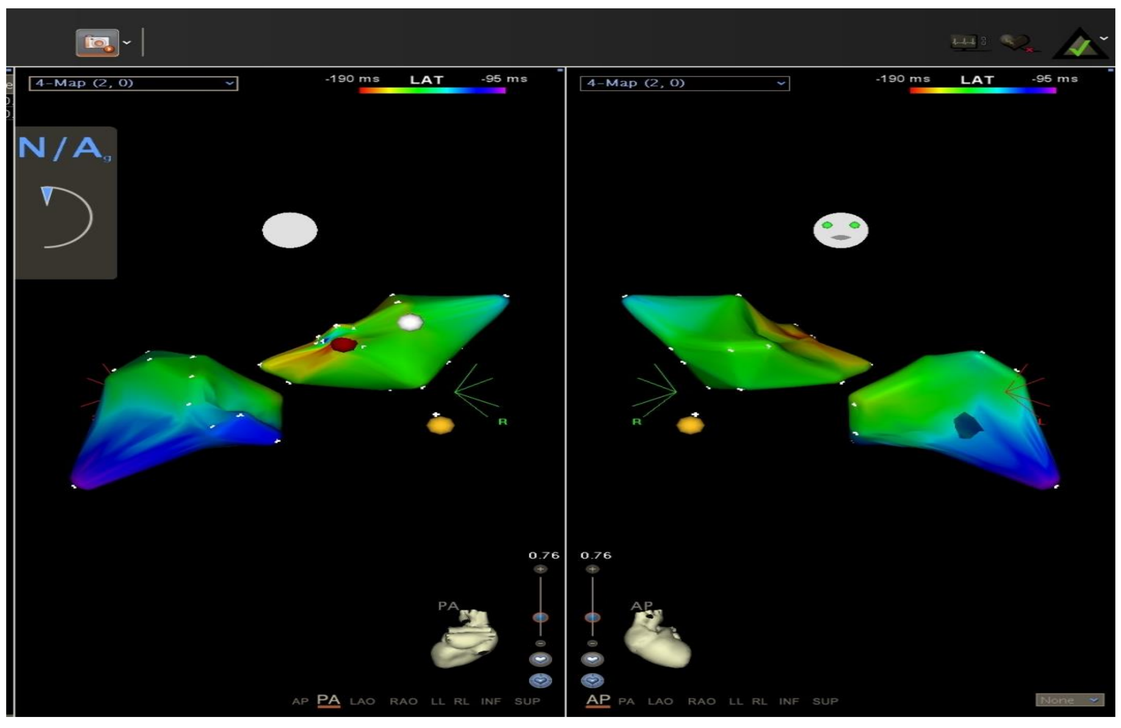


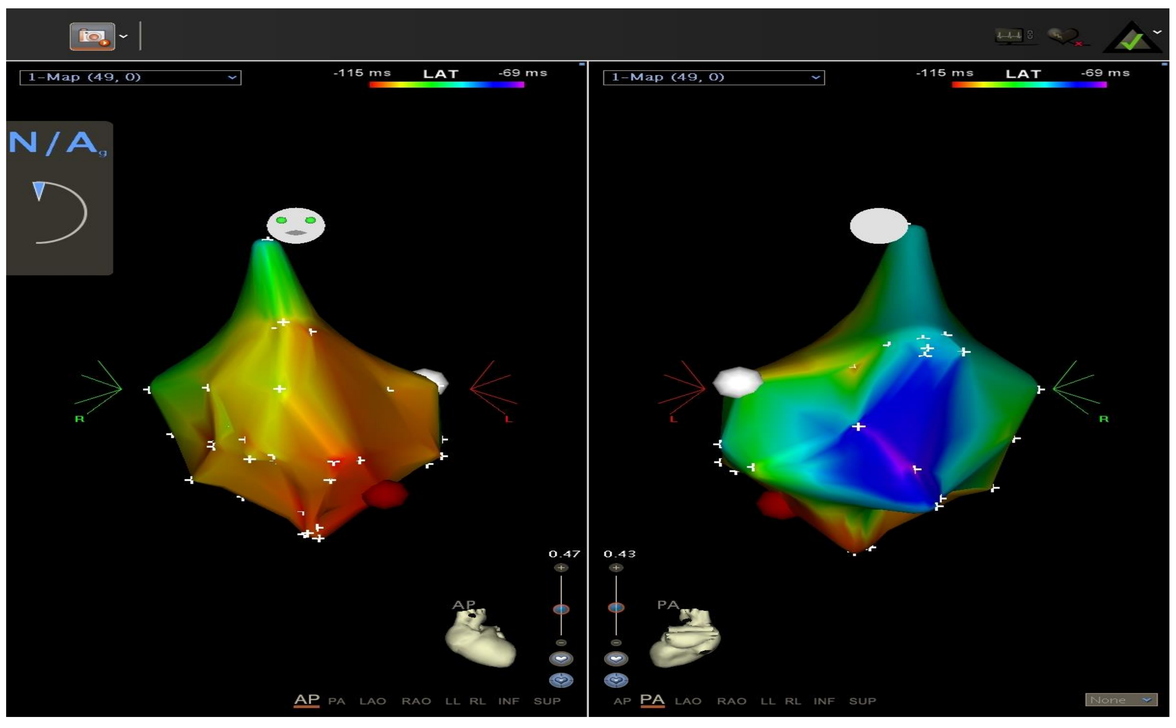




Conclusion

Our experience shows that RFA with CARTO3 navigation system is highly-efficient and safe way of treatment of ventricular arrhythmias in adults and children with symptomatic arrhythmias refractory to antiarrhythmic therapy. RFA of ventricular arrhythmogenic foci improves the quality of life, allows to minimize ICD implantation and reduce the sudden cardiac death cases.





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