Abstract

Background Cardiac electrophysiology has undergone significant advances in the therapeutic strategies of cardiac arrhythmias due to the implementation of invasive procedures as radiofrequency catheter ablation of arrhythmogenic substrates, foci and circuits. The Electrophysiology Council of the Argentine Society of Cardiology decided to create a registry of this procedure with free and anonymous participation of the main electrophysiology laboratories in our country. Objectives To recognize the number of catheter ablation procedures, epidemiological data of patients, indications, outcomes and complications based on the information provided by the participant centers during the studied period. Material and Methods We performed a prospective and consecutive registry of the procedures reported from November 2007 to March 2009 (16 months). A case report form was available at the SAC’s website in order to be completed online. The information was transmitted through the Internet using optional users’ names and passwords to ensure the security and privacy of patients and participant centers. The information could also be submitted via mail or e-mail. Results A total of 30 centers provided information about 762 catheter ablation procedures (average: 47 procedures per month). Radiofrequency was used in 98.7% of patients (752/752) and cryothermia in 1.3% (10/162). Eighty four percent of procedures were made by operators who perform 50 procedures per year and 67.6% (515/762) by operators with up to 100 cases per year. The procedure was successful in 93.4% (709/762) of patients, and 3% had complications (23/762). Mean age was 42 years (5-94) and 56.3% were men. Most patients (76%) had no structural heart disease; 83.7% presented symptoms. Catheter ablation was indicated as primary therapy due to: symptoms, refractory medical treatment or high arrhythmic risk in 712 patients (93.5%); the procedure was performed due to recurrences in 20 cases (2.6%) and to failed ablation in 30 (3.9%). The arrhythmogenic substrates or circuits treated were: atrioventricular nodal tachycardia (30%; 237/786); atrial fibrillation (3.6%; 28/786); atrial flutter (21.5%; 171/786); atrial tachycardia (4.3%; 34/786); macroreentrant atrial tachycardia (0.8%; 7/786); manifest accessory pathway (24%; 186/786); concealed accessory pathway (8.6%; 68/786); idiopathic ventricular tachycardia (2.5%; 20/786); ischemic ventricular tachycardia (0.9%; 7/786); ventricular tachycardia associated with other heart diseases (0.9%; 7/786); AV node ablation (1.9%; 15/786) and ventricular premature beats (0.9%; 7/786). The complications were: complete AV block (n=2), pericardial effusion (n=2), hematoma at the puncture site (n=4), catheter entrapment, first degree AV block, traumatic LBB; aortic dissection, intolerance to the procedure, crural neuropathy, femoral artery pseudoaneurysm and deep venous thrombosis. Conclusions This first registry of catheter ablation in our country provides important and useful information about this procedure.
and shows an adequate immediate success rate (93.4%), similar to those reported by international registries, with low incidence of morbidity or non severe complications (3%). This procedure can be considered safe and efficient.

Keywords
Registry - Electrophysiology - Catheter Ablation.