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**THE INCIDENCE OF VENOUS THROMBOEMBOLISM AND ITS RISK FACTORS FOLLOWING ELECTROPHYSIOLOGIC STUDY AND RADIOFREQUENCY CATHETER ABLATION IN PATIENTS WITH CARDIAC ARRHYTHMIA**

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**Objectives** The incidence of VTE in patients undergoing EPS and RFCA is considerable high. Procedure duration is potential to be a risk factor of TE. Better pharmacological thromboprophylaxis is considered to be essential, particularly in those patients with

potential risk factors.

**Methods** A prospective study was conducted from February 2003 to August 2006 in our clinic. A total of 348 patients with EPS (n=231) and RFCA (n=117) were analysed. For the diagnosis of DVT, Duplex ultrasonography evaluation of the bilateral femoral veins was performed after the procedure. Lung ventilation/perfusion scintigraphy was carried out in patients suspected to have PTE. An initial bolus of 3000 IU heparin was injected to all patients, and additional heparin was supplied when the activated clotting time (ACT) was less than 300 s during the procedure.

**Results** There were 38 patients with DVT (10.9%) and one patient of them was diagnosed as PTE (0.3%). With univariate analysis, the procedure duration and the number of the introducer sheaths were identified as a significant risk factor in the whole study population. When analysed by the stepwise multiple logistic regression model, only the procedure duration risk factor was found to be significant (OR=1.008, 95% CI 1.001 to 1.015). While, both ablation (OR=1.330, 95% CI 0.666 to 2.658) and adipositas (OR=0.808, 95% CI 0.402 to 1.621) did not appear to be related to TE. Smoking habit influenced negatively the incidence of VTE (OR=0.311, 95% CI 0.107 to 0.904). Pretreatment of aspirin had no relation to the occurrence of VTE (OR=1.055, 95% CI 0.5372 to 2.072). Additional heparin was required most in the patients with RF ablation, more introducer sheaths and longer length of duration to maintain the ACT more than 300 s during the procedure. The incidence of VTE in patients with additional heparin was significant high than the patients without additional heparin. Certain attention should be drawn on patients with potential risk factors, and the ACT measurement should be repeated to maintenance at an adequate level.

**Conclusions** The incidence of VTE in patients undergoing EPS and RFCA is considerable high. Procedure duration is potential to be a risk factor of TE. Better pharmacological thromboprophylaxis is considered to be essential, particularly in those patients with potential risk factors.

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