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**DECREASED PLASMA GLUCOSE CONCENTRATION PREDICTS LEFT ATRIAL THROMBUS IN PATIENTS WITH ATRIAL FIBRILLATION**

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**Objectives** This study examines the predictors of left atrial (LA) thrombus in candidates for atrial fibrillation (AF) catheter ablation.

**Methods** From January 2010 to December 2011, 72 consecutive patients with nonvalvular AF were enrolled. Patients with valvular heart disease, stroke, deep vein thrombosis, or pulmonary embolism were excluded. All patients underwent transoesophageal echocardiography (TOE) to detect LA thrombus. Several potential risk factors for thrombus were defined: aging, male, smoking index, hypertension, systolic/diastolic blood pressure, diabetes, fasting plasma glucose (FPG), dyslipidemia, triglyceride, cholesterol, uric acid, LA diameter, ischaemic cardiomyopathy, congestive heart failure and persistent AF

**Results** The incidence of thrombus was 8/72 (11.1%) without therapeutic anti-coagulation. Patients with thrombus had lower plasma glucose level, mean  $4.58 \pm 0.45$  mm vs  $5.77 \pm 1.22$  (p=0.008). In univariate analysis, smoking index (OR=1.002 with 95% CI 1.000 to 1.003), plasma glucose concentration (OR=0.043 with 95% CI 0.005 to 0.379), triglyceride (OR=4.942 with 95% CI 1.585 to 15.410), high density lipoprotein (OR=0.044 with 95% CI 0.002 to 0.840), LA diameter (OR=1.210 with 95% CI 1.070 to 1.369), and persistent AF (OR=6.600 with 95% CI 1.224 to 35.602) were significantly associated with LA thrombus. In multivariate analysis, plasma glucose concentration (OR=0.010 with 95% CI 0.000 to 0.894) was independently associated with LA thrombus.

**Conclusions** In conclusion, decreased plasma glucose concentration is an independent risk factor of LA thrombus in patients with AF.