**RESPONSE OF HIGH-SENSITIVE C-REACTIVE PROTEIN TO CATHETER ABLATION OF ATRIAL FIBRILLATION AND ITS RELATION WITH RHYTHM OUTCOME**

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Background: High-sensitive C-reactive protein (hs-CRP) has been linked with atrial fibrillation (AF) development but its role in predicting AF recurrences after catheter ablation is controversial.

Objective: This study investigated the possible association between hs-CRP as well as hs-CRP changes and rhythm outcome after AF catheter ablation.

Methods: We studied 68 consecutive patients with AF (mean age 59±11 years, 65 % male, 66 % lone AF, 59 % paroxysmal AF) undergoing catheter ablation. hs-CRP levels were measured before and 6 months after catheter ablation. Serial 7-day Holter ECGs were used to detect AF recurrences.

Results: Early AF recurrence (ERAF, within one week) was observed in 38 %, while late AF recurrence (LRAF, between 3 and 6 months) occurred in 18 % of the patients. None of the baseline clinical or echocardiographic variables was predictive of ERAF or LRAF. Baseline hs-CRP measured 2.07 ± 1.1 ìg/ml and was not associated with ERAF and LRAF. At 6 months, hs-CRP levels were comparable with baseline values (2.14 ± 1.19 ìg/ml, p=.409) and were also not related with LRAF. However, patients with LRAF showed an hs-CRP increase from 2.03 ± 0.61 to 2.62 ± 1.52 ìg/ml (p=.028). Patients with an hs-CRP change in the upper tertile (> 0.2 ìg/ml) had LRAF in 32 % as opposed to 11 % (p=.042) in patients in the lower (< -0.3 ìg/ml) or intermediate (-0.3 – 0.2 ìg/ml) tertile.

Conclusions: Changes in hs-CRP but not baseline hs-CRP are associated with rhythm outcome after AF catheter ablation.