

Prognostic significance of increased baseline plasma troponin I levels in PTCA patients. J. P. F. Chapelle, V. Legrand, J. Gielen, *University of Liege: Liege, Belgium.*

The aim of this study was to assess the prognostic efficacy of baseline plasma levels of cardiac troponin I (cTnI) in patients undergoing percutaneous transluminal coronary angioplasty (PTCA) for stable or unstable angina.

All patients (n=98) underwent coronary angioplasty from the right femoral artery following insertion of an arterial sheath. The rate of free event survival (without unstable angina, restenosis, myocardial infarction, coronary artery bypass, or death) at 6 months was 79.6%.

In each patient, blood was drawn at baseline and 24 h after PTCA. Several biochemical parameters (cTnI, ultrasensitive CRP, haptoglobin, LDL-cholesterol and homocysteine) were determined in each sample. cTnI was measured using the Stratus CS assay (upper reference limit: 0.06 µg/L).

The patient population was subdivided into two groups according to baseline cTnI levels (≤0.06 µg/L, group I, n=87; 0.06 µg/L, group II, n=11). The two groups were homogeneous according to age, sex, smoking habits, hypertension, diabetes mellitus, history of coronary heart disease and number of target lesions. Patients of group II had higher CRP (11.5–14.1 vs. 3.4–4.6 mg/L, $p<0.001$) and haptoglobin levels (1.51–0.50 vs. 1.19–0.46 g/L, $p<0.05$) than the others. They also demonstrated higher LDL-cholesterol levels (1.60–0.70 vs. 1.35–0.35 g/L, $p=0.11$), but this difference was not significant. There were no differences in baseline homocysteine levels and in cTnI elevation during PTCA between the two groups. Troponin positive patients had higher diameter stenosis (77.6–14.0 vs. 65.7–11.8%, $p<0.005$) before PTCA. There was no difference between the two groups in residual stenosis after PTCA. However, at 6 months, 45% of the patients of groups I - but only 17% of the patients of group I - experienced adverse events, a significant difference ($p<0.05$).

We concluded that increased baseline cTnI levels in patients eligible for PTCA are associated with inflammation and more severe coronary lesion. They also predict a worse 6-month prognosis after the intervention.