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Objectives Urokinase receptor (uPAR) is highly expressed in atheromatous plaques and plays a crucial role in inflammation by modulating cell migration and matrix degradation. We hypothesise that uPAR is also increased in the circulating monocytes of patients with acute coronary syndrome (ACS) compared to patients with chronic stable angina (CSA) and may be a marker of clinical instability.

Methods Consecutive angina patients were prospectively assessed including 195 with ACS [80 ST elevation myocardial infarction (STEMI), 66 with non-ST elevation myocardial infarction (NSTEMI), 49 with unstable angina (UA)] and 37 with CSA. The percentage of uPAR expressing monocytes (PUEM) and the mean fluorescence intensity (MFI) index of uPAR were measured using a flow cytometer.

Results The PUEM (median and IQR) on admission was significantly higher in patients with ACS (49.53%, 22.69%–88.30%) than in patients with CSA (10.00%, 2.30%–19.47%, p<0.001). Within ACS subgroups, the PUEM was elevated to 40.27% (20.68%–58.30%) and 46.39% (14.25%–84.07%) in patients with UA and NSTEMI, respectively, and peaked at 64.32% (26.78%–93.18%) in patients with STEMI. PUEM was positively correlated with left main stem disease (p=0.04) and hs-CRP (p=0.003) in the whole patient group and was the only significant predictor of ACS (OR 8.11, 95% CI 2.81 to 23.43, p<0.001) together with hs-CRP (OR 3.55, 95% CI 1.35 to 9.38, p=0.01).

Conclusions Increased uPAR in circulating monocytes has an independent significant association with ACS. These findings suggest that an increase of monocytic uPAR may be a marker of atheromatous plaque vulnerability.

Acute coronary syndrome

GW23-e1453 **INCREASED MONOCYTIC EXPRESSION OF UROKINASE RECEPTOR IN ACUTE CORONARY SYNDROME: A POTENTIAL MARKER OF CLINICAL INSTABILITY**

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