

# The Metabolic Syndrome, Angiographically Determined Stable Coronary Artery Disease, and Subclinical Inflammation

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Thematic topic: Medicine

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## INTRODUCTION/BACKGROUND (MAIN TITLE)

The metabolic syndrome (MetS) and stable coronary artery disease (CAD) frequently coincide; the individual contributions of these entities to subclinical inflammation have not been investigated yet.

## MATERIAL & METHODS

We enrolled 900 consecutive patients undergoing coronary angiography for the evaluation of suspected or established stable CAD. The MetS was defined according to National Cholesterol Education Programme Adult Treatment Panel III criteria; coronary stenoses with lumen narrowing  $\geq 50\%$  were considered significant.

## RESULTS

From our patients 496 (55.1%) had significant coronary stenoses; the prevalence of the MetS was higher in our patients with significant stenoses than in those without such lesions (41.3% vs. 34.4%;  $p = 0.033$ ). The inflammatory markers hsCRP and white blood cell count (WBC) were significantly higher in MetS patients than in those without the MetS both among patients with significant coronary stenoses (0.49 vs. 0.43 mg/dl;  $p = 0.004$  and 7.0 vs. 6.6 G/l;  $p = 0.002$ , respectively) and in subjects who did not have such lesions (0.46 vs. 0.36 mg/dl;  $p < 0.001$  and 7.1 vs. 6.3 G/l;  $p < 0.001$ , respectively). In contrast, these inflammatory markers irrespective of the presence of the MetS were not significantly elevated in patients with significant stenoses. Analysis of covariance after multivariate adjustment confirmed that CRP and WBC were significantly associated with the MetS but not with significant coronary stenoses.

## CONCLUSIONS & OUTLOOK

We conclude that subclinical inflammation is strongly and significantly associated with the MetS but not with angiographically determined stable CAD.