

# **Plaques in the Common Carotid Artery are Independent Predictors of Angiographically Determined Coronary Artery Disease**

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**Thematic topic: Medicine**

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## **INTRODUCTION/BACKGROUND**

The aim of this study was to examine the presence of common carotid plaques in patients referred to coronary angiography for routine evaluation of established or suspected coronary artery disease (CAD).

## **MATERIAL & METHODS**

A total of 168 patients undergoing coronary angiography for the evaluation of established or suspected stable CAD were included. Significant CAD was defined as the presence of coronary stenoses with narrowings of at least 50%. Each patient underwent carotid arterial ultrasound examination. Intima media thickness (IMT) and the presence of focal plaques in the common carotid artery (CCA) were recorded.

## **RESULTS**

From our patients, significant CAD was present in 92 patients (54.8%). Plaques in the CCA were present in 55 patients (32.7 %). Of these 55 patients 42 (76.4 %) had at least one significant coronary artery stenosis. Presence of plaques in the CCA proved significantly associated with an increased risk of significant CAD after adjustment for age, gender, diabetes, LDL cholesterol, HDL cholesterol, diabetes, body mass index, blood pressure and smoking (3.82 [95% CI 1.68-8.67];  $p = 0.001$ ); further, the number of significant coronary artery stenoses and the number of CCA plaques were significantly correlated ( $r = 0.285$ ;  $p < 0.001$ ).

## **CONCLUSIONS & OUTLOOK**

Common carotid artery plaques are independently predictive for presence of significant coronary artery stenoses.