Gender, Psychosocial Factors and Coronary Risk

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Analyses from the NHLBI Family Heart Study show that high-risk women with high hostility and low social support had significantly increased risk of myocardial infarction and carotid artery intimal wall thickness, whereas H-R men had an increased risk of coronary surgery.
METHODS. Mediating mechanisms were investigated in 535 average-risk (A-R) women, 491 A-R men, 1950 high-risk (H-R) women, and 1667 H-R men from 3 ongoing epidemiologic studies (Framingham Heart Study, Atherosclerotic Risk in Communities Study & Utah Health Family Tree Study). High risk was defined by relating observed to expected CHD events based on findings from the Framingham Study. PAI-I, fibrinogen, blood pressure, lipids, homocysteine, fasting glucose and metabolic index were regressed on hostility scores, adjusting for age and health behaviors.
RESULTS. In unadjusted analyses, significant associations between hostility and six of ten risk factors were observed among H-R women, but none in H-R men. In the A-R group, hostility was significantly related to only one (men) and two (women) of the risk factors. After adjusting for age and health-related behaviors, hostility was significantly associated with fasting glucose and metabolic risk in H-R women, with metabolic risk and PAI-1 in H-R men, with metabolic risk in A-R women, and with fibrinogen in A-R men. A genome scan for hostility showed no significant lod scores.
CONCLUSION. Hostility is associated with greater risk of CHD events in H-R women but with metabolic dysfunction in 3 of the 4 groups.