Depression, stress, anxiety and anger compound CVD risk in RA patients

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New research reveals that depressive symptoms, stress, anxiety, and anger and lack of social support in patients with rheumatoid arthritis (RA) were linked to atherosclerosis—a build-up of fatty deposits in the arteries that contributes to cardiovascular disease. The study published in *Arthritis Care & Research*, a journal of the American College of Rheumatology (ACR), suggests that screening and treatment of psychosocial symptoms may curb the cardiovascular disease burden in RA patients.

The Centers for Disease Control and Prevention report that 1.5 million Americans are burdened by RA—an autoimmune disease that causes fatigue along with joint pain, swelling, and stiffness. Previous studies have shown that cardiovascular disease is more prevalent in RA patients compared with the general population, and contributes to greater mortality in this patient group. However the reasons for this increased risk of heart disease in those with RA remains unknown.

"Understanding the risk factors that lead to greater mortality in those with chronic conditions like RA is extremely important," explains lead investigator Dr. Jon Giles, Assistant Professor of Medicine at Columbia University, College of Physicians & Surgeons in New York City. "Our study is the first to investigate the association between psychosocial comorbidities and elevated risk of atherosclerosis in RA patients."

The present study used data from the Evaluation of Subclinical Cardiovascular Disease and Predictors of Events in Rheumatoid
Arthritis Study (ESCAPE), which examined the prevalence, progression, and risk factors for cardiovascular disease in RA. The cohort included 195 RA patients and 1,073 controls without RA who underwent computed tomography and ultrasound to measure coronary artery calcium (CAC) and carotid artery thickness for plaque build-up to determine the degree of atherosclerosis.

According to the study results higher anxiety and anger scores, depression and caregiver stress were associated with increased risk of CAC greater than 100 units (moderate to severe disease) in patients with RA. After adjustment for relevant covariates and markers of inflammation, findings persisted in those with RA and not in the controls.

The team also found that RA patients had an increased risk of carotid plaque due to job stress. However, increasing social support was linked to lower carotid intima-media thickness in those with RA. "Our study shows that depression, stress, anxiety, and anger are associated with atherosclerosis markers, which are known predictors of cardiovascular risk in RA," concludes Dr. Ying Liu, the first author of the study. "These findings highlight the importance of screening and treatment of heart disease risks factors to limit not only health care costs, but prevent morbidity and mortality for RA patients."

More information: "Psychosocial Comorbidities are Differentially Associated with Subclinical Atherosclerosis in Rheumatoid Arthritis: Comparison with MESA." Ying L. Liu, Moyses Szklo, Karina W. Davidson, Joan M. Bathon and Jon T. Giles. Arthritis Care and Research; Published Online: August 13, 2015. DOI: 10.1002/acr.22635

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