NT-proBNP is a predictor of CV risk in arthritis patients taking NSAIDs

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The role of N-terminal pro-B-type natriuretic peptide (NT-proBNP, a protein thought to be a regulator of cardiovascular function) as a robust, non-invasive predictor of cardiovascular (CV) risk in patients with arthritis taking cyclooxygenase inhibitors has been reinforced by the results of a multinational study presented today at EULAR 2010, the Annual Congress of the European League Against Rheumatism in Rome, Italy.

The presence of NT-proBNP was associated with a range of CV outcomes, including CV death (p= arthritis, body mass index (bmi), renal function and history of prior cv disease. the results of this multinational trial, which involved the thrombolysis in myocardial infarction (timi) study group, evaluated 2-year cv outcomes in 6,273 patients with rheumatoid arthritis (ra) and osteoarthritis treated with the non-steroidal anti-inflammatory treatments etoricoxib or diclofenac.

"This study has validated previous research showing that NT-proBNP is a strong indicator for cardiovascular risk in arthritis patients," said Professor Kay Brune, lead author, Department of Pharmacology, University of Erlangen, Erlangen, Germany. "This means that clinically, the presence of NT-proBNP can be used to accurately assess a patients' CV risk, meaning that appropriate treatment options can be identified early on."

Furthermore, the assessment of CV disease risk in patients with Rheumatoid Arthritis (RA) was studied in a separate 15-year follow-up

study of Norwegian patients. The study aimed to determine whether early markers of RA inflammatory disease activity could predict arterial stiffness, a surrogate marker of CV disease. Arterial stiffness was measured as Pulse Wave Velocity (PWV) and Augmentation Index (AIx).

"From this research, we can now say that certain inflammatory markers seem to be independent, longitudinal predictors of CV risk in RA patients. Treatment options that help manage early inflammation in patients with RA may ensure that the long-term CV risk associated with RA is managed appropriately," said Dr. Sella Provan, Diakonhjemmet Hospital, Oslo, Norway, and lead author of the study.

In the Norwegian study, patients with elevated baseline C-reactive protein (CRP, a blood protein, levels of which may rise in response to certain types of inflammation) had a significantly higher AIx Beta co-efficient Confidence Interval (β(CI) 2.67 (0.06-5.31) p=0.045) and PWV after 15 years (β(CI) 0.08 (0.01-0.14) p=0.02) after adjustments for age, sex and mean arterial pressure (MAP). Baseline elevated CRP remained a significant predictor of increased AIx after adjustment for possible current confounders.

Provided by European League Against Rheumatism

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