

Prolonged repetitive physical workload increases risk of developing rheumatoid arthritis

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The results of a study presented today at the European League Against Rheumatism Annual Congress (EULAR 2016) showed that prolonged repetitive physical workload increases the risk of developing rheumatoid arthritis (RA). Although work-related physical activity over many years is known to cause many cases of osteoarthritis (OA) in selected joints, this is the first study to show a link between physical workload and RA.

To examine whether physical workload is a possible risk factor for RA, information on different types of self-reported exposure was analysed from a population of 3,680 RA patients and 5,935 matched controls included in the Swedish Epidemiological Investigation of Rheumatoid Arthritis (EIRA). To investigate whether some people are more susceptible than others, the risk was compared in subjects with and without a specific genotype (HLA-DRB1), and an analysis was performed in relation to the presence/absence of ACPA (anti-citrullinated protein antibodies) among RA patients.

"We found that some types of physical workload increased the odds of developing RA more than others," said Miss Pingling Zeng of the Institute of Environmental Medicine, Karolinska Institute, Stockholm, Sweden. "There also appeared to be a significant interaction between genetic makeup, in terms of HLA-DRB1 genes, and the risk of ACPA-positive RA from specific types of physical workload."

The estimated odds ratio of developing RA in exposed vs. unexposed subjects was greater than or equal to 1.5, with several repetitive types of manual work that would be common, for example, in the building trade: exposure to repeated vibration (1.5), carrying or lifting weights greater than 10kg (1.5), bending/turning (1.6), and working with hands either below knee level (1.7), or above shoulder level (1.8).

"These new insights into the cause of RA may hopefully lead to effective strategies to prevent the development of RA, particularly in those RA patients with a susceptible genotype," Miss Zeng concluded.

Provided by European League Against Rheumatism

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