

Research sheds light on why some rheumatoid arthritis patients respond poorly to biologics

November 13 2016

A Mayo Clinic study is shedding light on why some rheumatoid arthritis patients respond poorly when treated with tumor necrosis factor inhibitors, part of a class of drugs called biologics. It comes down to proteins: specifically, a protein in the body that drives inflammation in the disease, the research found. The discovery is an important step toward better personalizing rheumatoid arthritis treatment, helping to avoid trial and error when prescribing medications. The findings were presented at the American College of Rheumatology annual meeting in San Francisco.

Researchers found that patients with a higher amount or higher proportion of an inflammatory protein called type 1 interferon beta compared with another [inflammatory protein](#), type 1 interferon alpha, do not respond as well to [tumor necrosis factor](#) inhibitors as others. They looked at [white blood cells](#) called monocytes, a major cell type involved in [rheumatoid arthritis](#), and found that those cells behaved differently in one group than in the other.

The discovery paves the way for a more personalized approach to treatment in rheumatoid arthritis based on the biology of a particular patient's disease.

"Investigating these pathways may identify other targets for therapy or other markers that predict treatment response," says first author Theresa

Wampler Muskardin, M.D., a rheumatologist at Mayo Clinic in Rochester, Minn. "It will help rheumatologists find the right drug for each patient and spare patients medications that won't work for them."

The Rheumatology Research Foundation funded the study. Mayo rheumatologist Timothy Niewold, M.D., was the study's senior author.

In other studies presented at the meeting, Mayo Clinic researchers found:

- Sarcoidosis, the growth of tiny clusters of inflammatory cells called granulomas, carries a higher risk of heart disease and venous thromboembolism. Researchers also found there is seasonal variation in the incidence of sarcoidosis: Rates are consistently lower in autumn. Physicians believe that sarcoidosis may be triggered by the body's immune response to environmental factors, such as something inhaled from the air.
- The risk of coronary artery disease among patients with polymyalgia rheumatica is 70 percent higher than it is among others.
- Heart and circulatory abnormalities are common in Takayasu's arteritis, a form of vasculitis in which large blood vessels become inflamed.

Mayo rheumatologists and cardiologists formed the Mayo Clinic Cardio-Rheumatology Clinic to research and pioneer better prevention, detection and treatment of heart disease and other cardiovascular problems in patients with rheumatic diseases.

Provided by Mayo Clinic

Citation: Research sheds light on why some rheumatoid arthritis patients respond poorly to

biologics (2016, November 13) retrieved 26 April 2024 from
<https://medicalxpress.com/news/2016-11-rheumatoid-arthritis-patients-poorly-biologics.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.