Uncovering the molecular underpinnings of idiopathic multicentric Castleman disease

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Abstract

Idiopathic multicentric Castleman disease, or iMCD, is a deadly disorder involving a hyperactivated immune system. No one knows what causes iMCD, the key cell types involved, or even what type of disease to call it – autoimmune? cancer? The many unknowns make diagnosis and treatment extremely challenging. In a new publication, researchers have uncovered several key proteins involved in iMCD. By systematically comparing the levels of over 1000 molecules in blood samples from iMCD patients in flare and remission, they found that levels of immune molecules known as chemokines spike during disease flares and identified the PI3K/Akt/mTOR signaling pathway as a potential treatment target for patients who don't respond to first-line therapy. Although these findings must still be validated on more patients, the study provides new insights into iMCD and possible treatment options. For more information about iMCD, visit CDCN.org. Pierson, et al. Plasma proteomics identifies a 'chemokine storm' in idiopathic multicentric Castleman disease. (2018) AJH