

Cascade of immune mechanism and consequences of inflammatory disorders

KB Megha¹, Nayar Seema¹, and PV mohanan¹

¹Sree Chitra Tirunal Institute for Medical Sciences and Technology Bio-Medical Technology Wing

March 07, 2024

Abstract

Inflammatory responses arise as an outcome of tissues or organs exposure towards harmful stimuli like injury, toxic chemicals or pathogenic microorganism. It is a complex cascade of immune mechanism to overcome from tissue injury and to initiate the healing process by recruiting various immune cells, chemical mediators such as the vasoactive peptides and amines, proinflammatory cytokines, eicosanoids and acute-phase proteins to prevent tissue damage and ultimately complete restoration of the tissue function. The cytokines plays a central role in communication between the cells, inflammatory response initiation, amplification and their regulation. This review will outline the importance of inflammatory responses, the role of cytokines in inflammation and various inflammatory disorders due to the abrupt expression of cytokines and also highlighted the hyper-inflammatory response or cytokine storm associated in the poor prognosis in COVID-19 pandemic.

Hosted file

Manuscript.doc available at <https://authorea.com/users/411049/articles/710101-cascade-of-immune-mechanism-and-consequences-of-inflammatory-disorders>