免疫生物製劑在發炎性疾病之治療

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Immune responses are tightly regulated to ensure proper inflammation immune process for protecting the host against pathogens and for sensing danger signals or injury. The inflammation process is initiated and maintained by different immune cells, including cells involved in innate and acquired immunities, as well as by various cytokines/chemokines. After the pathogens are cleared or the injury is recovered, the anti-inflammatory mediators and cells will participate in down-regulation of inflammation process. However, over-activated and uncontrolled inflammation processes often lead to the maintenance of chronic inflammation and the development of various inflammatory diseases in humans, although different immune cells and cytokines may be involved in different inflammatory diseases. Among cytokines, IL-1, TNF, IL-6, IL-17, IL-18, IL-23 and interferon appears to play the important role in the maintenance of chronic inflammation, therefore, biologic agents have been recently developed in the past decade and successfully used in the clinical treatment for various inflammatory diseases. On the other hand, biologic agents that target T cell activation or cause B cell depletion are also approved for treating certain inflammatory diseases. In this talk, the role of cytokine and immune cells involved in the pathogenesis of various inflammatory diseases will be reviewed. The characteristic and mode of action for different biologic agents will be discussed. The current and potential clinical treatment indications for different biologics and new coming biologic agents will overviewed.