細胞激素在僵直性脊椎炎致病機制中的角色

The role of cytokine in the pathogenesis of AS

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Ankylosing spondylitis (AS) and allied diseases are potentially a setting of disabling musculoskeletal illnesses. Their major characteristic is inflammation of the spine. As the time lapses, patients may present with ankylosis and immobility of the spine. The inflammatory process mainly affects the entheses, where ligaments, tendons as well as joint capsules are attached to the bone. There are 3 major destructive processes occurring at the entheses, i.e., inflammation, bony erosion and syndesmophyte formation.

Tumor necrosis factor (TNF-α) has been found to play an essential role in these inflammatory processes and up to now there are 5 biologics targeting for it. However, it is not the only cytokine that is implicated in destructive processes. IL-23, IL-22, IL-12, IL-17A as well as IL-17F are also closely participating in the bony erosion or syndesmophyte formation. As have been widely recognized, the major causative factors of AS are genetic, with the gene encoding HLA-B27 being the most important one. Several other susceptibility genes have also been identified. However, whether the cytokine derangement is directly led by the genetic abnormality is still unknown. This mini-review outlines the cytokine profiles of the current research interest in this field.