使用免疫抑制劑患者選用新冠病毒疫苗之最佳策略

An optimal strategy of SARS-CoV-2 vaccine choice in patients treated with immunosuppressive agents

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The coronavirus disease 2019 (COVID-19) is a pandemic infectious disease that has led to an unprecedented global health crisis and is caused by the severe acute respiratory coronavirus (SARS-CoV-2). To prevent from COVID-19, one of the effective strategies is vaccination. Patients with inflammatory rheumatic diseases are considered at increased risk of COVID-19, and vaccination is especially warranted to this population. However, the concomitant drugs used to treat inflammatory diseases may also impair responses to vaccines. From recent accumulating evidence, Methotrexate has less substantial effect but appears to adversely impact most vaccine immunogenicity compared to other disease modifying anti-rheumatic drugs (DMARDs). For biologics, Rituximab has the most substantial impact on vaccine immunogenicity, especially when vaccinations are given at shorter intervals after rituximab dosing. In addition to Rituximab, the seroconversion rates were significantly lower for patients on Mycophenolate mofetil, Abatacept, and JAK-inhibitors as well as glucocorticoids in higher dosage. While TNF inhibitors appear to reduce SARS-CoV-2 post-vaccination titers, they do not seem to substantially impact rates of seroconversion. Other biologics (IL-6R, IL-12/23 and IL-17 inhibitors) have little observed impact on vaccine immunogenicity. The American College of Rheumatology (ACR) and European League Against Rheumatism (EULAR) have provided detailed recommendations for management of immunosuppressant therapy in the setting of the SARS-CoV-2 vaccine. Recently, Taiwan College of Rheumatology (TRA) has also developed guidelines for SARS-CoV-2 vaccines in patients with rheumatic diseases. In the following presentation, I will address available data regarding to the effect of DMARDs and biologics on vaccine immunogenicity and summarize vaccination recommendations made for this population.