STUDENTS' CORNER
LETTER TO THE EDITOR

Emerging treatments and their potential for rheumatoid arthritis in Pakistan

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Dear Madam, Rheumatoid arthritis (RA) is the prevailing chronic autoimmune disorder affecting the synovial joints. Over time, it leads to enduring inflammation, leading to swelling, deformity, and deterioration of daily functional abilities and overall well-being. In addition to these symptoms, the results of a study show that about 40% of RA patients suffer from complications, and the incidence of serious complications is 8.3%, among which cardiovascular disease, interstitial lung disease, osteoporosis, and metabolic syndrome are more common.[1] Activated Dendritic cells release various cytokines, including interleukin-1 (IL-1), IL-6 and IL-23. IL-6 causes differentiation of immature T-cells into Th-17 cells, which then produce cytokine IL-17. IL-17 has a significant role in chronic inflammation joint destruction.

In the past century, the medications utilised for treating rheumatoid arthritis (RA) have evolved significantly, becoming more advanced. Present-day drugs are designed to specifically target immunopathogenic pathways that play a role in the progression of the disease. One such medication includes a humanised immunoglobin G1 monoclonal antibody, Peresolimab, that stimulates human programmed cell death protein 1 (PD-1), which serves as an inhibitory receptor in the physiological immune inhibition pathway. Recently, a study has been conducted that provided evidence in favour of stimulation of PD-1 for the treatment of rheumatoid arthritis. Thus, Peresolimab has a potential efficacy in this regard.[2] It was a double-blind, placebo-controlled, and randomised trial that further strengthened its reliability.

Rheumatoid Arthritis (RA) is a major problem in Pakistan. A 2021 study revealed that in Pakistan, older age, lower education levels, and delayed consultation with rheumatologists contribute to significant delays in diagnosing and treating rheumatoid arthritis (RA). Older patients may attribute joint pain to aging, those with lower education might lack disease awareness, and specialist consultation delays worsen the issue. These factors lead to higher disease activity and poorer functional outcomes, as timely intervention is crucial for effective RA management and preventing irreversible joint damage.[3] The burden of the disease is further increased by the fact that most affected populations are in their reproductive years. Another study showing the treatment outcomes of RA in Pakistan revealed that roughly 44% of the patients had some joint deformity, which is quite rare in Western countries.[4] This highlights that the field of Rheumatology is still in the incipient phase in Pakistan. New therapies that have been shown to yield good results should be implemented in high prevalence regions such as Pakistan to increase the quality of life.

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MM: Research proposal, data collection, drafting and final approval.
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