Rheumatoid arthritis: where are we now?

Pathogenesis, treatment response and tailored therapy

RA is an autoimmune disease of unknown aetiology that primarily targets synovial tissues, cartilage and bone, and is the most common form of immune-mediated arthritis [1]. Although the armamentarium of therapies to treat RA is extensive, optimal symptom control and management of the disease have been elusive. High disease activity, joint damage and disability remain serious issues for patients and physicians and result partially from variable patient responses to therapy [1]. Therefore the uniqueness of each patient requires an equally unique treatment regimen that is specifically tailored to that patient. However, tailored therapy must follow the general principle of optimizing response by reducing symptoms and stopping further damage.

The goal of this supplement is to provide the reader with an overview of our current understanding of the pathophysiology of RA, a review of clinical trials and safety of biologic therapies that have been developed as a result of our improved understanding of RA pathophysiology, and guidance on important steps to consider when designing a treatment algorithm for the individual patient. The pathophysiology of RA, by Choy, gives details of our current understanding of the complexity and involvement of cytokines and immune mediators involved in disease pathogenesis [2]. In the second article, Pavelka et al. [3] present clinical data for treatment with biologics in patients with RA who have inadequate response to DMARDs. Although DMARDs are the first-line of treatment for RA, inadequate response either is observed early in the treatment process or manifests itself over time. The introduction of biologic agents, beginning with TNF-α inhibitors, has significantly improved patient care. However, as Emery discusses [4], many patients are or become inadequate responders to TNF-α inhibitors, as they do to DMARDs, and require alternative therapy to manage their symptoms. Although biologic agents were first established as combination therapy with DMARDs such as MTX, Gómez-Reino discusses data from clinical trials in which biologic monotherapy was used as an effective treatment for patients with RA [5]. Rubbert-Roth provides an update on the safety of biologic agents, including antibodies that target inflammatory cytokines, such as TNF-α and IL-6, and T- and B-cell inhibitors [6]. She discusses that the development of biologic agents has substantially improved RA therapy, but the safety of these agents has been of particular interest. Finally, the ultimate goal of rheumatologists is to provide each patient with a treatment regimen that attenuates his or her symptoms and helps establish remission. In the last article, Keystone et al. [7] present a treatment algorithm for patients with RA that is in agreement with clinical practice.

We hope that the information presented in this supplement will provide a helpful overview not only about the current state of assessing patient symptoms, but also about optimal care and management based on individual needs.

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