INTRODUCTION

Asthma is now one of the most common chronic diseases in the world, affecting over 300 million people, and its prevalence is rising, particularly in developing countries. Chronic inflammation of the airways results in airway hyperresponsiveness (AHR), a hallmark feature of asthma. Traditionally, asthma therapy was aimed at controlling symptoms, but recent studies have shown that some patients also require treatment for the underlying inflammatory processes. New therapies are being developed with the aim of reducing inflammation and improving the quality of life for patients. This article will discuss new asthma treatment options and their potential benefits.

In the past, asthma was viewed as a disease of bronchoconstriction and treated predominantly with bronchodilators. Current therapy for asthma depends on the severity of the condition and includes a stepwise approach to achieve asthma control, with inhalation corticosteroids (ICS) being the mainstay of treatment in all patients with persistent asthma, and long-acting inhaled beta-agonists (LABAs) are added in moderate to severe disease. In severe asthma, other add-on therapy may be necessary, and in very severe asthma, biologicals and immunosuppressants may be used. Additionally, combination therapy with ICS and LABAs is now commonly prescribed for control of asthma symptoms and prevention of exacerbations, with or without oral corticosteroids. While these treatments can reduce symptoms and improve quality of life, they do not cure asthma.

Nonetheless, it is now clear that asthma is a complex chronic inflammatory disease of the airways with many overlapping etiologies, and treatment of the underlying immune responses is necessary to achieve successful control of symptoms. There is also a need for new asthma therapies due to poor compliance with current treatments, side effects outside the lung for the current inhaled treatments, patients' preference for oral therapy, difficulty in treating severe asthma, and current unavailability of many potential therapeutic targets. Therefore, new asthma treatment options that are being developed as the understanding of cellular pathways involved in the disease increases.

Current therapy for asthma with ICS and inhaled LABA is highly effective, safe, and relatively inexpensive, but many patients’ symptoms remain poorly controlled, and severe asthma remains difficult to control with current treatments. The determinants of airway and alveolar remodeling and the pathobiology of chronic airway inflammation are still not fully understood. Despite improvements in treatment options, there remains a need to develop new therapeutic strategies to improve the management of asthma.

New therapies, including biologicals targeted at specific immune mediators, are being developed with the aim of reducing airway inflammation and improving asthma control. These new therapies are designed to target specific pathways involved in the pathogenesis of asthma, such as the immune system, the inflammatory response, and the nervous system. These therapies may be used in combination with existing treatments to further improve asthma control. The development of these new therapies has the potential to revolutionize the treatment of asthma and improve the quality of life for patients with this chronic disease.