Streszczenie w języku angielskim

Allergen immunotherapy (AIT) is the only disease-modifying treatment for allergic diseases, with well-documented efficacy and safety. The qualification of patients with autoimmune diseases (AID) for immunotherapy is not clearly defined and is largely based on expert opinion, which reflects the lack of randomized controlled trials as well as the limited availability of data derived mainly from historical case reports. The mechanism of action of AIT, involving the gradual escalation of allergen doses and modulation of the immune response, leads to long-term symptom reduction but also raises concerns regarding its potential impact on the course of autoimmune diseases.

Current approaches are moving away from the concept of allergic and autoimmune diseases as opposing poles of the immune response, emphasizing the overlap of their pathomechanisms, particularly in terms of immune dysregulation. The increasing prevalence of both groups of diseases highlights the clinical relevance of this issue. Consequently, appropriate qualification of patients for immunotherapy is becoming increasingly important. Nevertheless, despite the lack of conclusive evidence, some current guidelines still consider autoimmune diseases a contraindication to immunotherapy.

The aim of this study was to evaluate the safety and effectiveness of allergen immunotherapy in patients with autoimmune diseases, as well as to analyze its impact on the risk of development and exacerbation of these conditions.

The doctoral dissertation is based on three publications: one review paper and two original studies. A total of 1,198 patients with allergic rhinitis and/or anaphylaxis treated at a tertiary referral center between 2014 and 2024 were included in the analysis. Data were obtained from electronic medical records and standardized patient questionnaires. The incidence of autoimmune diseases, their exacerbations, the effectiveness of immunotherapy, and the occurrence of adverse events were assessed, with comparisons made between patients with and without autoimmune diseases, taking into account exposure to immunotherapy.

In the analysed population, a significantly lower incidence of newly diagnosed autoimmune diseases was observed in patients receiving immunotherapy compared to those not treated with this method. In patients with pre-existing autoimmune diseases, no increased frequency of exacerbations was found during treatment. The effectiveness of

immunotherapy was comparable between patients with and without autoimmune diseases, and the rate of adverse events did not differ significantly between the groups.

Allergen immunotherapy was not associated with an increased risk of developing new autoimmune diseases or exacerbating pre-existing conditions. The presence of AID did not significantly affect treatment effectiveness or the frequency of adverse events. These findings challenge previous concerns based mainly on case reports involving less purified allergen extracts and simplified immunological models, such as the Th1/Th2 paradigm. The use of real-world data enabled evaluation in a heterogeneous patient population and provided clinically relevant observations. The results are consistent with available observational studies and highlight the need for further high-quality research.