

EDITORIAL

AUTOIMMUNITY: A COMPLEX AND MULTIDISCIPLINARY PATHOLOGY

Among the medical disciplines that do not deal with a specific organ system such as for example neurology, gastroenterology or dermatology, our specialty – immunoallergology – has its own diagnostic and therapeutic methods which are common to diseases that affect different organ systems. It is therefore a multidisciplinary specialty characterized by a series of sections or areas.

Allergic disease is by far the most common disorder, and is moreover increasing – as has been demonstrated by the many epidemiological studies published in the last years. In terms of incidence, the most important allergic disorders involve the respiratory system, specifically the upper airways (rinitis, rhinosinusitis) or tracheobronchial tract (eosinophilic bronchitis, asthma). Allergic reactions affecting the eyes, skin or digestive system are likewise common, and it is frequent to find involvement of several locations in one same patient (rhinoconjunctivitis, eczema-asthma, etc.). Competition among the different specialties is evident¹⁻³, though allergology possesses essential diagnostic and therapeutic methods destined on one hand to identify the causal allergen or allergens (skin test, provocation tests) – among which drug substances must also be included (drug allergy) – and on the other hand to secure desensitization (immunotherapy) or elimination of the implicated allergens (hypoallergenic diets, cross-reactivity among allergens, etc.). Experience in interpretation of the diagnostic methods and in follow-up of the specific treatments justifies the need for the specialist in Allergology for the follow-up and control of these patients⁴. Such experience moreover must focus on the pediatric population (wheezing bronchitis in preschool children, asthma, food allergy in infant –milk proteins, egg–, atopic dermatitis, drug reactions, therapeutic management, etc.), thus justifying the role of Pediatric Allergology, or on the adult population – where the field for work is considerable, since it includes occupational respiratory diseases.

In immunopathology, a basic distinction must be made between the processes associated to diminished immune response (primary or secondary immunodeficiencies) and those involving an altered immune response (fundamentally autoimmune processes) – correlation between the two being observed in a number of cases. Despite the varied location and symptoms of immunodeficiencies, their diagnosis – fundamentally based on the specialized laboratory findings – treatment (gammaglobulin therapy, bone marrow transplantation, gene therapy, etc.) and follow-up correspond particularly to the immu-

nologist^{5,6}, in close cooperation with the internist or pediatrician, depending on the age of the patient.

Autoimmune pathology poses a different series of problems. Many diseases are characterized by an anomalous recognition of "one's own". Some are organ-specific (insulin-dependent diabetes mellitus, Hashimoto's thyroiditis, myasthenia gravis, etc.), though the majority are systemic or non-organ specific, affecting different organs and tissues (rheumatoid arthritis, scleroderma, lupus erythematosus, etc). Occasionally, one same patient can present more than one autoimmune disorder, and simultaneous combined systemic and organ-specific presentations are also possible⁷⁻¹⁰.

Several dozen autoimmune disorders have been identified, with a highly varied clinical expression that is not always easy to relate to this area of pathology, due to features in common with many other diseases such as fever, pain, arthralgia, malaise, dermatosis, anemia, etc.¹¹ For this reason it is not uncommon for the diagnosis to be delayed, since clinicians, in the face of common symptoms, first consider other more frequent disorders as a diagnostic possibility. Some of these autoimmune disorders, such as type 1 diabetes, are easier to identify, and are soon diagnosed by the internist or pediatrician. In contrast, other conditions require the intervention of other specialists (dermatologists, hematologists, rheumatologists, endocrinologists, gastroenterologists, hepatologists, nephrologists, etc.), and generally fall outside the clinical experience of the immunologist. Nevertheless, participation on the part of the immunologist, and particularly of a specialized laboratory, is necessary – since in the majority of cases different markers of the different diseases must be investigated, such as for example different antinuclear antibodies, antibodies targeted to extractable antigens, HLA antigens, antibodies against cells (erythrocytes, platelets, leukocytes, endocrine glands, etc.), cryoglobulins, or complement fractions. The obtainment of these elements and their interpretation in relation to the pathology under study is undoubtedly the task of the immunologist. The definitive diagnosis, treatment and follow-up possibly correspond to the aforementioned specialists, though it cannot be ruled out that the different Hospital Immunology Services may have personnel particularly dedicated to autoimmune pathology – as is seen in certain European centers.⁶ In any case, close cooperation among all is necessary in order to ensure prompt and effective management of patients with these illnesses.

However, the immunologist plays a preponderant role in the research of the pathogenesis of autoimmunity – an area where many gaps in knowledge remain, since many factors may cause the production of autoantibodies that escape the limits of what is known as physiological or positive autoimmunity, and which largely contributes to the maintenance of normal physiology⁹. Research is a basic reference for gaining improved knowledge of the etiopathogenesis of these diseases, and in this context the experi-

mental laboratory plays a key role, led by specialists in immunology with the best conditions and experience.

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