

Psychology of the allergic patient

Michel F-B. Psychology of the allergic patient.
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Biological hypersensitivity is the fundamental feature of atopy, and patients suffering from this syndrome are characterized by their ability to produce high levels of IgE in response to low amounts of antigen. This hypersensitivity results in a range of acute and chronic diseases, such as asthma, rhinitis, allergic conjunctivitis and atopic dermatitis. In addition to their biological effects, these diseases may have psychological consequences in terms of stress, anxiety or depression. However, atopic patients, far from displaying a typical depressive psychological profile, are characterized by their increased emotional sensitivity. Atopic individuals alert us to the presence of allergens but perhaps they also indicate something about our way of life. Are the symptoms displayed by allergic patients, their wheezing, sneezing or itching skin, more than a simple biological response?

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The relationship between psychological factors and the condition of allergic patients has long been observed by physicians. It has been noted that psychological factors can cause improvement or worsening of the disease state. In some cases, psychological factors can trigger the onset of the condition. This paper refutes the often-stated theory that there is a unique psychological profile in allergic patients. This theory has not been properly demonstrated.

When a representative sample of allergic patients is examined, it is usual to find a percentage of anxious, depressive or aggressive patients. It has been suggested that many allergic patients are anxious, but this is not surprising as these patients have, since childhood, suffered from severe conditions, such as bronchial asthma which wakes them up every night, or atopic dermatitis which causes terrible itching. It is more scientific, therefore, to examine the psychological profile of allergic patients using statistical analysis.

Semeiometric study

In early 1993, Marion Merrell Dow commissioned the Gallup society SOFRES to undertake a study of French citizens aged 15 years or more. From 20,000 letters, 17,084 individuals responded, of whom 1,833 were allergic (1). The results of this investigation, which used semeiometry (measurement of the emotional reaction elicited by words), showed an interesting divergence of psychological persona (Fig. 1).

- Asthmatic patients were found to be the most regressive group, fearing adult life and craving affection.
- Rhinitic patients tended to be the most self-possessed of the allergic subjects, having an adult outlook on life and aspiring to independence of mind and spirit.
- Patients suffering from eczema or urticaria in general exhibited feminine and maternal traits, were attracted by external appearances ('the glittering image') and feared power.

It is necessary to distinguish the consequences of allergic diseases on the psychological condition of these patients, from the role of psychological factors in the genesis of allergic diseases. Everyone knows the debilitating effects of chronic allergic diseases on patients. They are the same as every chronic disease which significantly diminishes the

Asthma	Rhinitis	Skin Allergy
• Regressive • Real need of protection • Afraid of adult life	• Adult outlook • Sensual and harmonious • Independent of mind	• Feminine and maternal values • Narcissistic • Afraid of power and self-assertion

Fig. 1. Results of the semeiometric study of 1,833 allergic patients.

quality of the sufferer's life. The doctor must explain the underlying mechanisms of the disease to the allergic patient, and the means by which it may be prevented, treated and managed. The study of the psychological state of allergic patients considers the eventual intervention of psychological factors in the genesis of the disease. Hypersensitivity is particularly important in allergic patients, both in terms of biology and psychology.

Hypersensitivity

Biological hypersensitivity

It is not necessary to emphasize the term 'biological hypersensitivity' for allergologists, since this is the essential characteristic of asthmatic patients. What makes hereditary atopy unique is its capacity to produce large amounts of IgE antibodies in response to very small quantities of allergens. This ability to detect the allergens to which a patient is sensitized is a clinical reality, leading some doctors to describe allergic patients as detectors of airborne pollution.

Affective hypersensitivity

Affective hypersensitivity is closely related to biological hypersensitivity in allergic patients. In general, the allergic patient is in touch with his own feelings and looks upon the outdoor world with an exceptional sensitivity. If the allergologist requires confirmation of this, he has only to look at the exceptional testimonies of numerous painters, musicians and writers. For example, the French writer, Marcel Proust (2) writes of the heightened awareness of his five senses resulting from his asthma:

"My book is to no extent a work of reasoning. Its slightest elements have been furnished by my acutely sharp senses. I first became aware of them in the depth of my soul, and was unable to understand them, having as much trouble to convert them into something intelligible as if they had been strangers to the world with as much substance as, - how can I put it? - a musical tune."

It is well-known that asthmatic patients can react to non-allergic stimuli which are sensory rather than biological triggers. Thus the patient's asthma, which was previously directly associated with contact with allergens, later appears following inhalation of any non-specific stimuli; for example, the smell of asparagus or the scent of roses, where the pollen is entomophilous and does not itself appear to be allergenic.

Eventually, no allergenic or sensory stimuli are needed to trigger an asthmatic attack. The mere thought of a dreaded substance is sufficient to induce the crisis in those asthmatics for whom the

glimpse of a bouquet of artificial flowers or even a housewife shaking a duster in a film is sufficient to cause an attack.

If one wishes to go further in the analysis of hypersensitivity in the asthmatic patient, one could say that asthma might be the rudimentary expression of an ailment which, incapable of being expressed by the larynx in words, manifests itself by this inarticulate monotone of wheezing from the bronchi. It should be stressed that biological and affective hypersensitivities have some convergent and divergent effects. When both are concordant, as in the case of Marcel Proust, numerous acute sensations are ever-present, placing the sufferer in a state of continual readiness, alert to the slightest stimulus. Proust's book is particularly rich in its sensory evocations - whether they be auditory, gustatory or olfactory.

The sensations themselves bring to mind past experiences and cause the sudden appearance of past memories. A real but unexpected sensation provokes an impression identical to that of a previous experience, and while the two sensations superimpose the past, feelings loom up with an acuity, a vigour and a presence of which the voluntary memory is incapable of generating. This past feeling is not only remembered but re-lived. As Proust has it:

"One would have said that a part of my chest had been removed by a skilful surgeon and replaced by an equal part of ethereal suffering, by an equivalent of nostalgia and love. And, no matter how skilfully the sutures were performed, one lives so wretchedly when the regret of a being is inserted into the viscera ..."

Biological and affective hypersensitivities may sometimes have divergent results. Biological hypersensitivity causes the handicap associated with the disease - the asthma attack - and results in the outside world becoming a hostile environment for the sufferer. In contrast, affective hypersensitivity

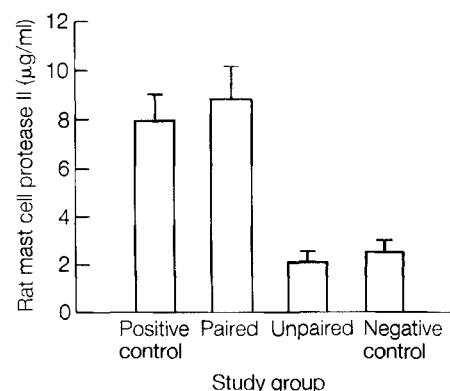


Fig. 2. Experimental conditioning of rat mucosal mast cells to secrete rat mast cell protease II.

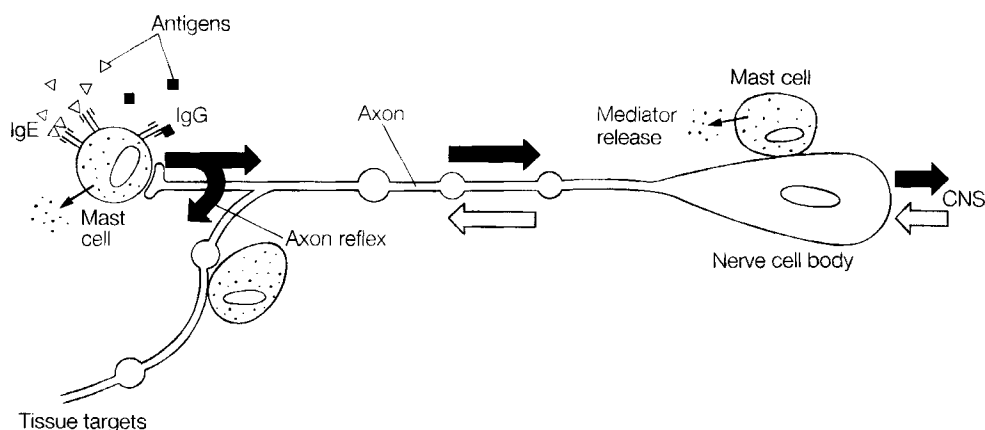


Fig. 3. The link between the autonomic nervous system and mast cells.

is a personal universe, miraculously recreated and internalized in an inoffensive form. The exterior world is no longer a threat. Its aggression is transmuted into pictorial or literal images. In this situation, the asthmatic is outside space and time.

Scientific data

It is easy to understand that biological and affective hypersensitivities are able to elicit the same physiopathological phenomena by means of identical pathways. Williams et al. (3) have demonstrated, by experimental conditioning of mast cells, that the immune system is involved in conditioned allergic responses (Fig. 2). In their experiments, rats were conditioned with an audiovisual conditioning stimulus comprising loud noise and flashing lights. The rats were sensitized to egg albumin and were trained on three successive occasions to associate the injection of antigen with the audiovisual cue. Subsequently, the rats were exposed to the audiovisual cue alone and demonstrated significant rises of serum rat mast cell protease (RMCP II) comparable to levels in animals challenged with antigen. In contrast, animals receiving saline injection alone or the audiovisual stimulus and antigen injection separated by a period of 24 hours had much smaller increases in RMCP II. Since this protease is thought to be restricted to mucosal mast cells, these data support the earlier report of conditioned histamine release in the guinea pig, and suggest that mast cell activation might be partly regulated by the central nervous system via the peripheral nerves in the respiratory and gastrointestinal tracts.

In the same manner, links between the autonomic nervous system, various proinflammatory cells, (mast cells in particular) and epithelia or muscles have been demonstrated (Fig. 3). Williams et al. have shown that there is considerable evidence that nerves may influence the function of mast cells, either directly or indirectly (3). A bidirectional communication between mast cells and nerves can occur. They state that mast cells sensitized to environmental antigens through passive binding of IgE and IgG antibodies to their Fc receptors can communicate information to the periphery, and thus to the central nervous system, concerning the extent of mast cell interaction with local antigens. Through this mechanism, axon reflexes can be initiated, and influence the endothelium, smooth muscle, epithelium and other structures in their immediate vicinity to produce vasodilation and flare reaction in the skin. This two-way communication is not only found in diseased states, but also in normal healthy tissues. Most of their morphological and physiological evidence comes from the gastrointestinal tract and respiratory tract, and some evidence exists to support the contention that mast cells may communicate with nerves in other tissues, such as skin.

References

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