Auto-Allergic Diseases and Their Relation to the Immediate and Delayed Types of Allergic Reactivity

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Experimental "auto-allergic" lesions affecting the lens, uvea, central and peripheral nervous system myelin, testis, thyroid, and adrenal are readily produced in laboratory animals by sensitization with tissue constituents, usually with the aid of mycobacterial adjuvant. Adequate evidence is available to prove beyond question that these are actually hypersensitive responses to autologous tissue antigens. The lesions do not have the histologic character of lesions produced by direct tissue destruction or by the anaphylactic or Arthus mechanisms, are not correlated in any way with circulating antibody against tissue components, and cannot be produced passively in normal recipients by transfer even of large amounts of serum from sensitized animals. In contrast, the auto-allergic lesions are similar histologically to well-recognized delayed allergic responses (tuberculin reaction, contact allergy) and can be passively transferred with living lymphoid cells from sensitized donors. Affected animals show typical delayed skin and corneal reactions to tests with tissue antigens, these being correlated with the disease process. The conclusion is drawn from these facts and several minor points of evidence (route of sensitization, effect of steroids, "tolerance" experiments) that these reactions represent a hypersensitive reaction of the delayed or tuberculin type to autologous tissue antigen.

*.Summary. * Summary. Cfr. B. H. Waksman : Experimental Allergic Encephalomyelitis and the "Auto-Allergic" Diseases. Suppl. ad vol. 14

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