

Autoimmune Diseases; prophylaxis by vaccination against their microbial triggers

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It is now apparent that all autoimmune diseases have microbial triggers, exemplified by Type A beta-haemolytic streptococci for rheumatic carditis and the more recent discovery by Ebringer that the bacteria *Proteus mirabilis* trigger rheumatoid arthritis and other bacteria, *Kebsiella pneumoniae* trigger ankylosing spondylitis. The pathogenesis of the autoimmune diseases is now solved, being Burnet's Forbidden Clone Theory. This states that somatic mutations in multiplying lymphocytes produce the Forbidden Clones of lymphocytes that cause the autoimmune diseases by accidentally reacting with a host component instead of a microbial one. The genetics of the autoimmune diseases is also solved, being Adams and Knight's H Gene Theory, which states that Histocompatibility antigens, major, minor and H-Y, dictate the immune response repertoire by deleting complementary clones and so alter the risk of occurrence of the various autoimmune diseases. It is apparent that prophylaxis of autoimmune diseases could be achieved by vaccinating against their triggering microbes. This has been demonstrated with Salk's poliomyelitis vaccine, which has prevented the leg paralyses that can now be seen to have been rare autoimmune complications of virtually universal poliovirus infection. Search for microbial triggers of autoimmune diseases is an urgent medical research necessity, none greater than for the probable virus that triggers schizophrenia.

Biography

Duncan Adams entered Medicine with a view to doing research on asthma. Sir Charles Hercus apprenticed him to Dr HD Purves to use radioactive iodine in thyroid research. This led to discovery of the autoantibodies that cause Graves' disease, winning the Van Meter Prize, and enabling confirmation of Burnet's

Forbidden Clone Theory of the pathogenesis of the autoimmune diseases. With John Knight, Adams solved the genetics of autoimmune disease with the H Gene Theory, confirmed by Alan Ebringer who has discovered the microbial triggers of two autoimmune diseases. Discovering and vaccination against microbial triggers will enable prophylaxis of autoimmune diseases.

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