Multiple autoimmune syndrome (MAS) is a condition in which patients have at least three distinct autoimmune conditions. In multiple autoimmune syndrome, patients often have at least one dermatological condition, usually vitiligo or alopecia areata. In many cases of multiple autoimmune syndrome reported in the medical literature, vitiligo is the first autoimmune disease to be diagnosed. In these cases, vitiligo is usually bilateral and symmetrical (occurring in the same places on both sides of the body), and in most cases of vitiligo that occurred in multiple autoimmune syndrome, autoimmune thyroid disease was also present.

Researchers note that in many cases, the presence of one autoimmune disorder helps lead to the discovery of other autoimmune conditions. For instance, in an article from the Ocular Immunology and Uveitis Foundation, a patient is reported as having ocular cicatricial pemphigoid disorder in both eyes, a history of hypothyroidism, and difficulty in swallowing. Although studies of her esophagus were non-diagnostic, additional tests showed the presence of lichen planus of the mouth. Had the patient not had evidence of autoimmune disorders, her diagnosis and subsequent treatment for lichen planus may have been missed.

Causes of Multiple Autoimmune Syndrome

Familial or genetic, infectious, immunologic and psychological factors have all been implicated in the development of multiple autoimmune syndrome. Cytomegalovirus, for instance, is shown to cause the development of multiple autoantibodies. And certain autoantibodies are found in disorders affecting multiple organs. Disorders of an autoimmune nature are known to occur with increased frequency in patients with another autoimmune disease. About 25 percent of patients with autoimmune diseases have a tendency to develop additional autoimmune disorders.

Types of Multiple Autoimmune Syndrome

Multiple autoimmune syndrome can be classified into three groups that correspond with the prevalence of their being associated with one another. In patients with two autoimmune diseases, this classification is helpful when signs of a third disorder emerge.

1. Type 1 MAS includes myasthenia gravis, thymoma (tumor of the thymus gland), polymyositis (inflammatory muscle disease), and giant cell myocarditis (inflammatory heart muscle disease).
2. Type 2 MAS includes Sjogren’s syndrome, rheumatoid arthritis, primary biliary cirrhosis, scleroderma, and autoimmune thyroid disease (Hashimoto’s thyroiditis, atrophic thyroiditis, Graves’ disease).
3. Type 3 MAS groups together autoimmune thyroid disease, myasthenia gravis and/or thymoma, Sjogren’s syndrome, pernicious anemia, idiopathic thrombocytopenic purpura (ITP), Addison’s disease, insulin dependent diabetes, vitiligo, autoimmune hemolytic anemia (AIHA), systemic lupus erythematosus (SLE), and dermatitis herpetiformis. For this group, the immune system marker HLA-B8 and/or DR3 or DR5 seems to be an important factor.

Other conditions found in various combinations in MAS are:

- * pemphigus and autoimmune thyroid disease in type 1 MAS;
- * chronic active hepatitis, SLE, pemphigus, bullous pemphigoid, AIHA, ITP, alopecia areata and Addison’s disease in type 2 MAS;
- * acquired primary hypogonadism, hypophysitis, rheumatoid arthritis, primary biliary cirrhosis, relapsing polychondritis, multiple sclerosis, chronic active hepatitis, ulcerative colitis, and scleroderma in type 3 MAS.

**Resources:**
