

# The general practice guide to autoimmune diseases

The development of autoimmunity and autoimmune diseases is believed to involve interactions between genes, hormones, and the environment and was labeled in 1989 as “The mosaic of autoimmunity”. This complex interplay between the immune system and various stimuli, that comprise the pebble of the mosaic, is controlled by a wide array of mechanisms [1–2]. In the last decade there have been enormous strides in our understanding of autoimmune mechanisms which enabled us, to some extent, to predict and prevent diseases [2–4]. The relationships between environmental factors such as infectious agents, vaccines, adjuvant and drugs as well as hormones such as vitamin-D, ferritin and prolactin that can shift the immune pendulum toward autoimmune inflammation have been extensively studied [5–10]. Therefore, nowadays we aspire into an era where we can recommend preventive measurements that will ameliorate or postpone autoimmunity. Of which a proper diet, avoidance of exposure to certain hormones (i.e. oral contraceptive) or UV radiation, climatotherapy, and the consumption of vitamin-D have been reported [11–16].

The diagnosis of autoimmune and auto inflammatory diseases has always been a challenging task. The presences of autoantibodies, such as rheumatoid factor, anti-nuclear and anti-CCP antibodies, as well as newly recognized as anti-pentraxin antibodies, in combination with diverse genetic markers have become central for early and accurate diagnosis of systemic diseases [17–20].

Last but not least the accumulated knowledge regarding systemic and organ specific autoimmune diseases has opened a new horizon for target oriented therapies. Intriguingly, it seems that once immune modulation is concerned the resemblance between autoimmune diseases outweigh their differences. Thus many of these novel targeted interventions were found to be beneficial in more than one autoimmune condition.

In the current book aimed for general practitioners (GPs) we tried, together with well known rheumatologists and autoimmunologists, to focus on what the GPs need to know and when they better refer the patient to the specialist. The EASI organization aimed for standardization of autoantibodies constructed from rheumatologists and autoimmunologists decided to expand the knowledge to the GPs. This is the first book of its kind and we hope to update it in the future.

We hope that you will enjoy reading the book.

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Learn how autoimmune diseases are diagnosed and treated at Boston Children's Hospital. If the doctor suspects a autoimmune disease, they will gather more information through lab tests, including: Antinuclear antibody (ANA), which can detect certain abnormal proteins called antinuclear antibodies that the immune system makes when attacking the body's own tissues. Rheumatoid factor (RF), which, like ANA, can detect an abnormal protein that the immune system makes when attacking the body. Autoimmune diseases turn your immune system into the one who kills healthy body cells. It is important to recognize the symptoms of autoimmune diseases. Keep reading for detailed info. In this autoimmune disease, the immune system destroys your nerves that control muscles in the legs. It may also affect the nerves in the arms and upper body. Psoriasis.