

Autoimmune Diseases Associated with Hepatitis C

I. Mixed Cryoglobulinemia

- a. Glomerulonephritis
- b. Vasculitis
- c. Mononeuritis Multiplex

II. Sjogren's Syndrome

- a. Typically anti-Ro and anti-La negative
- b. Sialoadenitis present frequently
- c. Several reports suggest a 10 - 20% incidence of Hepatitis C in Sjogren's Syndrome, but controversial
- d. B-Cell Lymphoproliferative disorders and monoclonal gammopathies reported in Hepatitis C with cryoglobulins and associated Sjogren's Syndrome.

III. Arthritis

- a. Polyarthritis/Arthralgias can occur and be the presenting manifestations of Hepatitis C
- b. Rheumatoid factor and ANA commonly occur with Hepatitis C and Arthritis. Positive anti-cyclic citrullinated peptide ab (anti-CCP) test can establish a diagnosis of Rheumatoid Arthritis (RA) in this setting with 98% specificity for RA
- c. Transaminases may be normal in up to 1/3 of patients
- d. Arthritis is usually non-erosive with occasional erosive disease reported
- e. RA has been reported to occur after Hepatitis C infection
- f. Palmar Tenosynovitis and Carpal Tunnel Syndrome often present.

IV. Antiphospholipid Antibody Syndrome

- a. A number of reports suggest a relationship of Hepatitis C with thrombotic episodes
- b. Anticardiolipin abs reported to occur in 22% of Hepatitis C patients.

V. Autoimmune Thyroid Disorders

- a. High prevalence of anti-thyroid abs seen and a much lower prevalence of overt thyroid dysfunction
- b. Alpha inteferon can induce anti-thyroid abs and in patients with pre-existent thyroid autoantibodies, overt disease can occur

c. Discontinuation of alpha interferon results in resolution in most patients.

VI. Autoimmune Hepatitis

- a. Features resembling Autoimmune Hepatitis. Autoantibodies reported include ANA, anti-smooth and anti-liver/kidney microsomal abs
- b. Treatment of this subset with Prednisone/Imuran reported to be effective with minimal change in Hepatitis C viral RNA blood level.

VII. Other Potential Associations

- a. Dermatomyositis/Polymyositis
- b. Interstitial Lung Disease
- c. Systemic Lupus Erythematoisus
- d. Autoimmune Hemolytic Anemia and Thrombocytopenia
- e. Myasthenia Gravis
- f. Behcet's Syndrome
- g. Idiopathic Cardiomyopathy
- h. Fibromyalgia