

Introduction:

Autoimmune hepatitis (AIH), is a disease state in which the body's immune cells attack the cells of the liver. The hepatocytes are destroyed systematically by the immune system. The immune system causes hepatitis that can be acute or chronic. Autoimmune hepatitis is more common in women than in men and it has an association with other autoimmune disorders such as: pernicious anaemia, thyroiditis, Coeliac's disease and Coombs-positive haemolytic anaemia. The aetiology of the condition is not known and it is proposed that a genetically pre-disposed individual, and exposed to the correct environmental agent(s) causes a sequence of T-cell mediated attacks against the liver antigens that produces a necro-inflammatory response that ultimately results in fibrosis and cirrhosis. ⁽¹⁾

On histological examination, one would typically expect to find typically only one defining histological feature that is indicative of AIH, a conspicuous plasma cell infiltrate, and that in itself is not diagnostically sound as it can occur in other conditions such as the lymphomas. The mononuclear infiltrate will generally invade the limiting plate of the periportal tract, with demarcated hepatocyte boundaries surrounding the liver parenchyma. This state is termed interface hepatitis and may progress to the liver lobules. In AIH, the biliary tree is spared usually unless in an overlap syndrome with Primary Biliary Cirrhosis (PBC) or Primary Sclerosing Cholangitis (PSC). Fibrotic changes occur in all but the mildest forms of AIH, with distortion of the hepatic lobules and bridging fibrosis connecting the lobules with advanced disease and isolation of regenerative nodules by the fibrotic changes; cirrhosis is usually the outcome as the disease advances. ⁽²⁾

The diagnosis of AIH is made in the presence of a compatible histological picture, as well as the characteristic serological and biochemical findings that would be typically expected with a case of AIH; aminotransferase elevations are a key feature as opposed to bilirubin and alkaline phosphatase abnormalities, a generalized elevation of serum globulins in particular γ -globulins and IgG which are generally 1.2 to 3.0 times greater than the normal reference range.

Circulating autoantibodies that are typically found in circulation in AIH include; ANA (anti nuclear antibody), SMA (smooth muscle antibody), antiactin antibody, SLA/LP autoantibodies, pANCA, anti-LKM-1 and anti-LC-1 autoantibodies. Antimitochondrial autoantibodies are sometimes found in circulation in cases of AIH but it is important to note that the presence of these autoantibodies are present in other liver diseases and so their presence is not definitive of AIH and only in context of these other abnormal biochemical, histological and the clinical presentation can a diagnosis of AIH be made. The presence of particular autoantibodies can allow for the differentiation of the subtypes of AIH though, for example it would be typically