



## A CASE OF AUTO IMMUNE HEPATITIS - OVERLAP SYNDROME

## General Medicine

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## ABSTRACT

31 year old lady, presented with complaints of itching and skin discolouration for past 4 months, known case of hypothyroidism not on medication. On investigation, her LFT is deranged showing mixed pattern. Liver biopsy shows features of autoimmune hepatitis, overlap syndrome. She was started on corticosteroids and immunosuppressants. On follow up patient, recovered in clinical and laboratory parameters with aforementioned treatment.

## KEYWORDS

## INTRODUCTION :

Autoimmune hepatitis (AIH), primary biliary cirrhosis (PBC) and primary sclerosing cholangitis (PSC) are the three major immune disorders of the liver. The coexistence of primary biliary cirrhosis (PBC) and autoimmune hepatitis (AIH) occurring simultaneously has been called "overlap syndrome". Overlap syndromes should always be considered once an autoimmune liver disease has been diagnosed.

## CASE REPORT:

31 year old lady, presented with complaints of itching and skin discolouration for past 4 months, known case of hypothyroidism not on medication, with no other comorbidities. Vitals were stable. Icterus is present. Systemic examination revealed hepatosplenomegaly and examination of other systems were unremarkable. Investigations revealed total bilirubin of 1.49 mg/dl, direct bilirubin of 0.56 mg/dl, AST of 299 IU/L, ALT of 213 IU/L, GGT of 664 IU/L, ALP of 533 IU/L, TPO antibody-59.36, TSH of 150 microIU/L, ATG of 29.13, ASMA is positive. Liver biopsy shows features of severe autoimmune hepatitis, overlap syndrome. Based on clinical, laboratory and radiological, histological features diagnosis of autoimmune hepatitis with overlap syndrome is made. Patient was started on prednisone and azathioprine and tab. levothyroxine 125mcg. On follow up patient, recovered in clinical and laboratory parameters with aforementioned treatment.

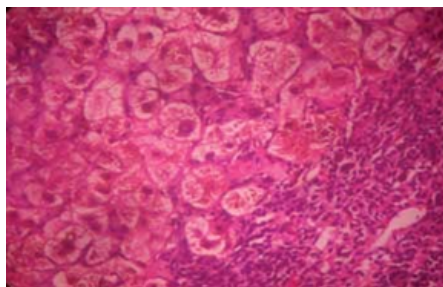


Figure-1: liver biopsy showing lymphoid follicle with lymphocytes infiltration, bile duct loss with proliferation and hepatocytes showed feathery degeneration, intrahepatic cholestasis and minimal regeneration.

## DISCUSSION:

AIH-PBC OS mainly affects women 50 to 60 years of age (1,2). This OS is characterized by symptoms of pruritus, jaundice and fatigue, which in most cases are present from the onset (3). Other specific symptoms such as fatigue, arthralgia and myalgia are also present in this syndrome (4). Hepatic function tests show a mixed pattern with the presence of cytotoxicity and cholestasis, while histological findings of cholangitis coexist with interface hepatitis. Patients with AIH-PBC

overlap syndrome show a predominant HLA type B8, DR3, or DR4 similar to AIH and a good response to corticosteroid treatment [5]. So far, recommendations for treating PBC-AIH overlap syndrome are usually based on the methods used to treat the two main autoimmune liver diseases separately. It's appropriate to start treatment with uDCA (13-15 mg/kg daily). However, if this therapy does not induce an adequate biochemical response in an appropriate time span (e.g. 3 months) [6] or in patients with predominantly hepatic serum liver tests, a corticosteroid should be added. Prednisone has been used at an initial dose of 0.5 mg/kg daily and should be progressively tapered once ALT levels show a response. The role of other immunosuppressants, (azathioprine) in the long-term management of patients with AIH-PBC overlap syndrome is unclear, but it's an alternative to corticosteroids for long-term immunosuppressive therapy. Budesonide and cyclosporine A has also been used in patients with AIH-PBC overlap syndrome with success [7]. Liver transplantation is regarded as the treatment of choice for end-stage disease.

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