

Lichen planus exacerbation by interferon - alpha - 2A for chronic viral hepatitis C

Al Ghamdi AS, Al Suwaidan SN, Al Sheikh OA, Al Rasheed SK, Laajam MA. Lichen planus exacerbation by interferon - alpha - 2A for chronic viral hepatitis C. Saudi J Gastroenterol [serial online] 2000 [cited 2012 Mar 10];6:161-2.

Available from: <http://www.saudijgastro.com/text.asp?2000/6/3/161/33479>

Interferon-alpha is used for the treatment of patients with Hepatitis C. Virus (HCV) infection, resulting in a response rate of 30%-50% with half of them relapsing after stopping the therapy. It is appropriate only in selected patients, owing to significant toxicity and side effects. We report a case of HCVpositive patient with chronic hepatitis who experienced the exacerbation of his mild lichen planus after starting interferon therapy.

Case Report

A 49-year-old male who has been followed up intermittently for the last two years with chronic hepatitis C liver disease. He gave a history of jaundice 30 years ago, otherwise there was no other risk factor or family history of liver disease. He has a history of skin eruption in the chest and legs of more than 10 year duration. Physical examination revealed dark brown macules and patches over the chest, hands and feet at the site of previous eruption. He has stigmata of chronic liver disease with splenomegaly and liver span of 10 cm. Before starting interferon therapy, serum aspartate amino transferase (AST) and alanine amino transferase (ALT) levels of 189 U/L and 195 U/L respectively.

Hepatitis C virus RNA-PCR result was positive and liver biopsy showed active nodular cirrhoses compatible with hepatitis C infection.

The patient insisted on interferon therapy. He was started on interferon-2a 3mU three times a week with careful weekly monitoring. After a total of 11 injections skin eruption flared up with severe involvement of oral mucosa. Dermatologic assessment revealed multiple, pruritic, scaly, flat topped and erythematous to violaceous papules and plaques over ventral aspect of wrists, hands and lower extremities [Figure - 1]. Whitish interlacy streaks on buccal mucosa and tongue intermingled with dark brown hyperpigmented macules with lip involvement [Figure - 2].

Skin biopsy from a lesional site showed epidermal hyperkeratosis, hypergranulosis, and mild spongiosis. Evidence of hydropic degeneration of the basal cell layer and Colloid bodies were present. The upper dermis contains a band-like infiltrate of chronic inflammatory cell consisting of lymphocytes and histiocytes, in addition to occasional melanophages. These histopathological features were consistent with lichen planus.

There was no decrement in the ALT and AST levels over this period. Subsequently interferon therapy was discontinued and the cutaneous lesions subsided after one week.

Discussion

The cause of lichen planus (LP) remains unknown, evidence currently available suggests that LP represent a reflection of cell mediated immune response^[1]. Lichen planus is one of the major skin diseases frequently associated with HCV infection^{[2],[3]}

An increased prevalence of autoimmune markers has been reported in patient with HCV infection and there has been a significant association between the concomitance of oral LP and HCV infection and the presence of such antibodies especially to epithelial antigens^[4]. One study suggested that oral LP pathogenesis in hepatitis C is due to host factors induced by HCV infection rather than direct HCV participation^[5].

While alpha-interferon therapy is used in treatment of patients with HCV a preexisting LP would potentially exacerbate as a side effect of interferonalpha therapy of chronic hepatitis^[6].

Alpha interferon may rarely (3.3%) induce immune-mediated dermatological disorders, especially LP. The development of these disorders may reflect a subclinical or covert autoimmune back ground of patients, as suggested by the presence, although in low titres of antinuclear antibodies^[7]. Exacerbation of immune disorders in patients treated by interferon has also been demonstrated, which means that an autoimmune assessment should be performed before prescribing interferon^[8]. In our case, since the patient is known to have mild form of LP before initiating interferon therapy, we think most probably that the cutaneous disease was exacerbated after introducing interferon. Since HCV infection is common in our community with increase use of interferon (for treatment) we would like to draw the attention to the common association of this drug to LP.

References

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