Successful Interferon Treatment for Lichen Planus Associated with Chronic Active Hepatitis due to Hepatitis C Virus Infection

Sir,

In the last 20 years attention has been drawn to the possible association of lichen planus (LP) with chronic liver diseases, especially primary biliary cirrhosis and chronic active hepatitis (1). The overall prevalence of liver disease in patients with LP varies widely in the literature, ranging between 0.1 and 11.3% (1).

Recently, the simultaneous occurrence of LP and hepatitis C has been repeatedly reported, and LP should be added to the list of dermatologic diseases associated with hepatitis C virus (HCV)-induced chronic active hepatitis (2). A search for HCV infection should therefore be systematically performed in patients with chronic LP.

Since interferon is now accepted as routine therapy for chronic HCV (3), and since severe worsening of LP during interferon treatment for chronic HCV had been reported (4), we here report on the disappearance of LP during interferon treatment for HCV-induced chronic active hepatitis.

CASE REPORT

A 62-year-old woman presented with diffuse, flat-topped, violaceous, polygonal papules on the forearms and thighs. Her past history was unremarkable. Histologically, the papule showed thickening of the granular layer, liquefaction degeneration of the basement membrance and basal cells, and a band-like lymphocytic infiltrate in the upper dermis. Routine laboratory investigations, including liver function tests, were within normal limits. Nine months later, elective cholecystectomy was performed because of cholelithiasis and hydrops of the gall bladder, and the following parameters were noted: alanine aminotransferase 105 IU/l and aspartate aminotransferase 84 IU/l (normal values for both <40 IU/l) and lactate dehydrogenase 347 IU/l (normal value <225 IU/l); alkaline phosphatase, gammaglutamyl transpeptidase and bilirubin were within normal limits. Serologic tests for hepatitis B virus and hepatitis A virus were negative, while anti-HCV antibodies were detected (ELISA method). During the cholecystectomy a macronodular, irregular liver was noted and a liver biopsy revealed micronodular hepatic cirrhosis. There were no changes in laboratory findings or in LP appearance following cholecystectomy. Eight months later the patient was treated with interferon alpha-2a 3×10^6 units intramuscularly, three times a week for 6 months. After 3 months of treatment, all the cutaneous lesions cleared, and marked improvement on the liver function tests was observed. The lesions remained clear for the 3 years of follow-up, as did the improvement in liver function.

DISCUSSION

There are histologic and immunologic similarities between LP and chronic active hepatitis which resemble graft versus host reactions – lymphocytic infiltrate, colloid bodies and a fibrosclerotic healing process. So far there is conflicting evidence concerning the primary process that initiates the events leading to the histopathologic changes in LP. LP may begin with the processing of some unidentified antigens by the Langerhans' cells, followed by migration and activation of lymphocytes against the epidermal basal cells. The damage to basal cells is thought to be mediated by cytokines, lymphotoxins, and cytotoxic T-cells. An alteration in epidermal antigenicity, induced by a virus, might provoke this reaction.

Interferon-alpha is now accepted as routine therapy for chronic HCV. In two recent prospective studies (5, 6), more than 100 patients with hepatitis C received interferon-alpha, and no case of LP was noted during follow-up. Rodrigues et al. (7) presented a case of LP induced by interferon-alpha in a patient with IgG myeloma. There are four more reports on the induction or aggravation of LP by interferon-alpha given for chronic HCV (4, 8). A possible explanation for this observation is the stimulation of keratinocytes to express hidden surface antigens or to release chemoattractants, thereby enhancing the migration of T-cells into the dermis (8).

In the present case, as in 2 previous cases reported by Doutre et al. (9), LP lesions disappeared concomitantly with interferon treatment.

It is possible that the antiviral and immunologic actions of interferon play a role in the treatment of LP associated with HCV. The efficacy of therapy is always difficult to appreciate in cases of LP, because its evolution is totally unpredictable, with occasional cures even in the absence of any treatment. Thus, the contradictory observations regarding the role of interferon in the treatment of LP are not surprising. To date, insufficient data are available to define the exact role of interferon in the treatment of LP.

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