Interferon alfa-2b in mixed cryoglobulinaemia: a controlled crossover trial

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Abstract

To confirm the positive results of a preliminary trial, 26 patients with mixed cryoglobulinaemia were enrolled in a controlled, randomised, crossover trial with interferon alfa-2b. A significant improvement was seen in the purpura score and alanine aminotransferase activities during six months' treatment, and was associated with a significant decrease in cryocrit and a returning to normal of the lymphocyte CD4/CD8 ratio (in eight of nine patients). No significant variations were seen during the six month period without interferon. Only six patients withdrew from treatment, three because of side effects and three because of poor compliance.

Mixed cryoglobulinaemia is an idiopathic lymphoproliferative disease with a variable number of visceral manifestations secondary to the tissue deposition of circulating immune complexes. The liver plays a part in the disease and chronic active hepatitis is a common complication occurring in about 70% of cases. The presence of hepatitis C virus (HCV)-RNA and anti-HCV antibodies in 90% of patients with mixed cryoglobulinaemia suggests that this virus may play an important pathogenic part.

Treatment for mixed cryoglobulinaemia depends largely on the extent and severity of organ involvement in the disease. Steroid and plasma exchange or both, and a low antigen content diet have been used in a large series of patients with mixed cryoglobulinaemia. Interferon alfa-2b, an antiviral and immunomodulatory drug, has also been used in this disease with encouraging results. The aim of this controlled, randomised, crossover trial was to confirm the positive results of our preliminary study.

Results

During interferon alfa-2b treatment, a statistically significant improvement was seen using Wilcoxon's non-parametric test in the purpura score and in serum alanine aminotransferase activities (Table II). Clinical results were also reflected by changes in immunological parameters: cryocrit decreased...
significantly and lymphocyte CD4/CD8 ratio returned to within normal limits in eight of nine patients. In contrast, no significant variations were seen during the six month period without interferon. Only six patients withdrew from the trial: three because of side effects and three because of poor compliance.

Conclusions
These results confirm the efficacy of interferon alfa-2b, particularly for purpura and liver involvement in mixed cryoglobulinaemia. As HCV seems to be responsible for the immunological disorder in mixed cryoglobulinaemia, the use of interferon, an antiviral drug, can be considered a possible treatment for this condition.