

Another step forward in hepatitis C therapy

Pegylated interferons are being hailed as the next generation of drugs for the treatment of hepatitis C virus (HCV) infection. In the USA, there are 8-10 000 deaths every year from HCV and this is projected to rise to 38 000 by 2010, overtaking the annual rate of deaths from AIDS. Pegylated interferons are interferon molecules that have been chemically coupled to polyethylene glycol, which effectively increases the half-life of the drug.

The current therapy for HCV, interferon alone, shows sustained therapeutic benefit in 7% to 20% of HCV-infected patients. The therapy involves injections three times a week, but the advantage of the pegylated interferons is that it is required only once a week. Unfortunately, patients taking the pegylated forms do not avoid the significant side-effects associated with conventional interferon therapy and this remains a major challenge.

Both Schering-Plough and Roche, manufacturers of these new compounds, have reported promising clinical data in patients with mild disease (*Hepatology* 2001 **33**: 433-38; *Hepatology* 2000 **32**: 647-53;) and, for the Roche product, those with more advanced fibrosis or cirrhosis (*N Eng J Med* 2000 **343**: 1673-680). In each case pegylated interferon was used as monotherapy and was significantly more effective than the standard form given three times a week. The Schering drug has now been approved by the US Food and Drug Administration as monotherapy for patients with compensated liver disease who have not been previously treated with interferon. It is expected that the Roche version will be approved later this year.

The next clinical milestone will be data from the combination of pegylated interferons with ribavirin, which could increase efficacy of therapy even further. In 1998 ribavirin in combination with interferon was introduced and this doubled the sustained response rate such that approximately 40% of patients had biochemical and virological improvement. Graham Foster (Imperial College of Medicine, London, UK), a leading hepatologist, commented that "the data from both trials looks extremely encouraging. However, it will be important to assess all the data, including the ribavirin combination effects, before it is possible to definitively prescribe the optimal therapy".

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