Pegylated interferons show promise as second-line therapy for viral hepatitis

Chronic infection with HBV or HCV can lead to progressive cirrhosis, liver failure, and an increased risk of hepatocellular carcinoma. Before the availability of pegylated interferons (PEG-IFNs), interferon-α, with or without ribavirin, was the preferred first-line treatment for HCV-infected individuals; HBV-infected individuals typically receive first-line therapy with interferon-α and/or lamivudine. A substantial proportion of patients do not respond to (or relapse after) interferon treatment for HBV or HCV, so the efficacy of PEG-IFNs in the re-treatment of these patients has been investigated.

Flink and colleagues' international, multicenter, randomized, controlled trial analyzed data from 76 patients with chronic hepatitis B who had not responded to previous treatment. All patients received 100 μg PEG-IFN-α2b), plus either placebo or 100 μg lamivudine daily, for 52 weeks. The PEG-IFN-α2b dose was reduced to 50 μg after 32 weeks to prevent adverse effects and improve compliance. A response was observed in 13 of 37 patients who previously did not respond to interferon, 5 of 17 patients who previously did not respond to lamivudine and in 4 of 22 patients who previously did not respond to both therapies in combination. The addition of lamivudine to PEG-IFN-α2b did not influence the response to treatment. The best predictor of a response to PEG-IFN-α2b was a baseline serum alanine aminotransferase level >4 times the upper limit of normal; such patients had a significantly improved response rate compared with those whose levels were below this value (53% versus 20%; $P = 0.036$). The authors estimate that approximately a third of patients with chronic hepatitis B who did not respond to first-line interferon or lamivudine therapy will achieve a sustained virologic response if treated with PEG-IFN-α2b.

Sherman and colleagues conducted a multicenter, open-label study of Canadian patients with chronic hepatitis C who had not responded to ($n = 212$) or had relapsed after ($n = 100$) previous interferon-α or interferon-α plus ribavirin treatment. All patients received 180 μg PEG-IFN-α2a weekly plus 400 mg ribavirin twice daily, for 24 weeks ($n = 28$) or 48 weeks ($n = 284$). Lack of an early virologic response at 12 weeks accurately predicted the failure of PEG-IFN-α2a therapy. A higher proportion of patients who relapsed after previous interferon treatment achieved an early virologic response, compared with patients who did not respond to previous interferon treatment (84% versus 58%). A sustained virologic response rate of 23% was seen in patients who had not responded to previous interferon treatment and of 41% in patients who had relapsed following previous interferon therapy. Sustained virologic response rates were greater for patients infected with HCV genotypes 2 and 3 (47%) than HCV genotype 1 (24%). This difference might be attributable to the low ribavirin dose used; subsequently, a daily dose of 1.0–1.2 g ribavirin was shown to be the optimal treatment for individuals infected with HCV genotype 1.

Both studies confirm that PEG-IFNs are an effective treatment for patients with chronic hepatitis B or C who have not responded to or relapsed after previous therapies based on interferon-α.

Original articles Flink HJ *et al.* (2006) Successful treatment with peginterferon alfa-2b of HBeAg-positive HBV non-responders to standard interferon or lamivudine. *Am J Gastroenterol* **101:** 2523–2529
Sherman M *et al.* (2006) Peginterferon alfa-2a (40kD) plus ribavirin in chronic hepatitis C patients who failed previous interferon therapy. *Gut* **55:** 1631–1638

Pneumatic dilatation increases risk of subsequent treatment in patients with achalasia

Achalasia is principally treated by either pneumatic dilatation (the preferred first-line treatment) or surgical myotomy. Lopushinsky and Urbach conducted a retrospective, longitudinal, population-based study in Ontario to compare the outcomes of these two procedures.

The authors evaluated data for 1,461 patients with achalasia (aged ≥18 years) who first underwent either pneumatic dilatation or surgical myotomy between 1991 and 2002.

Of 1,181 patients initially treated with pneumatic dilatation, 47.6% subsequently required ≥1 further dilatations, 12.5% underwent surgical myotomy and 1.1% underwent esophagectomy. By contrast, of 280 patients initially treated with surgical myotomy, 21.1% subsequently required ≥1 pneumatic dilatations, 8.6% required repeat myotomy and 2.1% underwent esophagectomy. The risk of reintervention 5 years after treatment