

**Gastroenterology.** 2008 Nov;135(5):1561-7. Epub 2008 Aug 3.

Ferenci P, Scherzer TM, Kerschner H, Rutter K, Beinhardt S, Hofer H, Schöniger-Hekele M, Holzmann H, Steindl-Munda P.

**Source:**

Internal Medicine 3, Department of Gastroenterology and Hepatology, Medical University of Vienna, Vienna, Austria.

**BACKGROUND & AIMS:** Oral Silibinin (SIL) is widely used for treatment of hepatitis C, but its efficacy is unclear. Substantially higher doses can be administered intravenously (IV).

**METHODS:** Pedigreed nonresponders to full-dose pegylated (Peg)-interferon/ribavirin (PegIFN/RBV) were studied. First, 16 patients received 10 mg/kg/day SIL IV (Legalon Sil; Madaus, Köln, Germany) for 7 days. In a subsequent dose-finding study, 20 patients received 5, 10, 15, or 20 mg/kg/day SIL for 14 days. In both protocols, PegIFN alpha-2a/RBV were started on day 8. Viral load was determined daily.

**RESULTS:** Unexpectedly, in the first study, HCV-RNA declined on IV SIL by  $1.32 \pm 0.55$  log (mean  $\pm$  SD),  $P < .001$  but increased again in spite of PegIFN/RBV after the infusion period. The viral load decrease was dose dependent (log drop after 7 days SIL:  $0.55 \pm 0.5$  [5 mg/kg,  $n = 3$ ],  $1.41 \pm 0.59$  [10 mg/kg,  $n = 19$ ],  $2.11 \pm 1.34$  [15 mg/kg,  $n = 5$ ], and  $3.02 \pm 1.01$  [20 mg/kg,  $n = 9$ ];  $P < .001$ ), decreased further after 7 days combined SIL/PegIFN/RBV ( $1.63 \pm 0.78$  [5 mg/kg,  $n = 3$ ],  $4.16 \pm 1.28$  [10 mg/kg,  $n = 3$ ],  $3.69 \pm 1.29$  [15 mg/kg,  $n = 5$ ], and  $4.85 \pm 0.89$  [20 mg/kg,  $n = 9$ ];  $P < .001$ ), and became undetectable in 7 patients on 15 or 20 mg/kg SIL, at week 12. Beside mild gastrointestinal symptoms, IV SIL monotherapy was well tolerated.

**CONCLUSIONS:** IV SIL is well tolerated and shows a substantial antiviral effect against HCV in nonresponders.