Predicting recovery from hep C

The standard of care for HCV infection is a combination of the following drugs:

- a long-lasting form of interferon called pegylated interferon (Pegasys or Pegetron)
- the nucleoside analogue ribavirin

These therapies have side effects and usually have to be taken for one year. After that time, an additional six months of observation is necessary before doctors can be sure that HCV is cured. The rate of recovery from HCV in co-infected people is poor compared to HCV mono-infected people. Researchers in Bonn and Köln, Germany, have been trying to find ways to assess the early virologic responses to HCV therapy to see if they can predict who will recover in the long term. In this way, patients may be spared unnecessary exposure to interferon and ribavirin and their side effects.

Study details

Researchers reviewed their clinic databases and selected certain patients for data-analysis, as follows:

- All patients had received standard doses of pegylated interferon once weekly.
- Their dose of ribavirin was adjusted for their weight (this is roughly equivalent to about 1,200 mg/day).
- Patients with the easier-to-treat genotypes 2 and 3 were given between 24 and 48 weeks of therapy. Patients with the more difficult genotypes 1 and 4 were given 48 weeks of therapy. After therapy, all patients were monitored for 24 more weeks. At the end of this time, blood tests were done to detect HCV.

There were a total of 227 co-infected patients available for analysis with the following average profile:

- 27% females, 73% males
- 60% were taking HAART
- age – 41 years
- CD4+ count – 531 cells
- HIV viral load – 12,000 copies

The distribution of HCV genotypes was as follows:

- genotype 1: 56%
- genotype 2: 6%
- genotype 3: 31%
- genotype 4: 7%

Results

The overall virologic results of participants were as follows:

- recovery: 41%
- no response: 40%
- relapse: 11%
- no detectable HCV but liver enzymes were strangely elevated, suggesting that HCV was still present deep within the liver: 8%

Predicting recovery

Factors that suggested patients were likely to recover were as follows:
• infection with genotype 2 or 3
• having a rapid HCV virologic response (RVR) – this means having HCV that becomes undetectable after four weeks of treatment
• having an early HCV virologic response (EVR) – having viral load decrease by at least 2 logs after 12 weeks of treatment

The following factors were useful in predicting an EVR:

• having HCV genotype 2 or 3
• having an RVR
• not using HAART while receiving treatment for hepatitis C

The study team offered two reasons why, in this preliminary analysis, not using HAART appeared to be associated with an EVR:

• People not taking HAART would be more likely to have a strong immune system (high CD4 counts and/or stabilized HIV infection) and this may be a factor associated with an EVR.
• Drug interactions between HAART and hep C treatment may be a factor associated with an EVR. People not taking HAART would not experience such interactions.

More research is needed to understand the potential relationship between HAART and an EVR.

Because retrospective studies such as this are based on looking back, the researchers may have missed collecting and analyzing important data. Therefore, biased interpretation of their results cannot be ruled out. In such cases, prospective studies are needed to confirm the conclusions reached by the German team.

**REFERENCE:**

Disclaimer

Decisions about particular medical treatments should always be made in consultation with a qualified medical practitioner knowledgeable about HIV- and hepatitis C-related illness and the treatments in question.

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