PegIFN-lambda shows superior virological response and improved safety than PegIFN-alpha-2a

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Highly exciting new data presented today at the International Liver CongressTM found Pegylated Interferon-lambda (PegIFN-lambda) shows superior virological response in HCV patients of genotypes 1-4, with improved safety and tolerability, compared to Pegylated Interferon-alpha (PegIFN-alpha-2a), the current standard of care in chronic HCV.[1]

The study results are so important because they show PegIFN-lambda could provide relief for the 20% of HCV patients who have to undergo dose reduction, or cease treatment, on PegIFN-alpha-2a – a part of the current HCV standard of care.[2]

The trial shows that PegIFN-lambda provides higher rapid virological response (RVR) and complete early virological response (cEVR) than PegIFN-alpha-2a, even in patients with an unfavourable IL28B genotype – which predisposes patients to be resistant to treatment.

Both RVR and cEVR are important markers of a drug's ability to combat HCV infection: RVR is measured as undetectable HCV RNA at week 4 of therapy, maintained up to end of treatment; cEVR is detectable HCV RNA at week 4, but undetectable at week 12, maintained up to end of treatment.

Results at week 12 of the trial show that those HCV genotype 1 and 4 patients given 180µg of PegIFN-lambda achieved RVR 14.7% of the

time and cEVR 55.9% of time, compared to 5.8% RVR and 37.9% cEVR in patients given the same dose of PegIFN-alpha-2a.

The study also found PegIFN-lambda was associated with fewer hematologic (blood cell) toxicities, flu-like symptoms, musculoskeletal symptoms, dose reductions and premature discontinuations than the same dose of PegIFN-alpha-2a. However, in the higher dose groups elevations of ALT and bilirubin were observed which may represent drug related toxicity.

Professor Heiner Wedemeyer, EASL's Secretary General, commented: "These are clearly very early results but the combination of better virological response and fewer side effects makes these very exciting findings. The percentage of current HCV patients that have to cease treatment, or have their dose lowered, due to the side effects associated with PegIFN-alpha-2a is high. We look forward to seeing the sustained virological responses, which will inform us whether PegIFN-lambda could be used as a replacement for PegIFN-lambda in the future."

In the ongoing randomized phase-IIB trial, 526 treatment-naïve HCV patients received ribavirin with weekly subcutaneous PegIFN-alpha-2a – a 180µg dose or PegIFN-lambda – either a 120, 180 or 240µg doses.

In HCV genotype 2 and 3 patients, 180µg of PegIFN-lambda led to 75.9% RVR and 96.6% cEVR, compared to 31% RVR and 86.2% cEVR for the same dose of PegIFNα-2a. PegIFN-lambda exerts its antiviral effects through a different receptor to PegIFN-alpha-2a.1

More information: References

1. Zeuzem S et al. Pegylated Interferon-lambda (PegIFN-λ) shows superior viral response with improved safety and tolerability versus PegIFNα-2a in HCV patients (G1/2/3/4): Emerge Phase IIB through

week 12. Abstract presented at The International Liver CongressTM 2011. www1.easl.eu/easl2011/program/Orals/422.htm

2. www.thebody.com/content/art1705.html . Accessed 11.03.2011

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