Efficacy and Tolerability of Peginterferon alfa-2a (40KD) (PEG) and Ribavirin (RBV) in Genotype 5 and 6 Patients with Chronic Hepatitis C under Real Life Conditions

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INTRODUCTION

- Reports of cHC-patients with genotype 5 or genotype 6 are rare and there are only anecdotal data about the outcome of treatment with PEG and RBV.
- The Association of German Gastroenterologists in Private Practice (bng, Berufsverband Niedergelassener Gastroenterologen Deutschlands e.V.) in cooperation with Roche, Germany, is conducting a nationwide observational study including screening and treatment phases to determine the quality of treatment for chronic hepatitis C (CHC) in routine clinical practice.

OBJECTIVE

- Aim of this analysis is to evaluate the treatment of cHC-patients with genotype 5 or 6 under real life conditions.

METHODS

- This evaluation is part of a large ongoing German multicentre, open-label observational study including anti-HCV-positive adults with detectable HCV RNA. The nature of this study allowed dosing and duration of both peginterferon alfa-2a (40KD) and ribavirin to be at the discretion of the physician.
- The screening data include age, sex, weight, height, duration and source of infection, prior antiviral treatment, clinical symptoms, histology, genotype, viral load, concomitant diseases and social status.
- This data set includes patients who completed treatment with peginterferon alfa-2a (40KD) plus ribavirin. The data collection was performed online via the internet.
- The documented data should reflect the clinical routine as intended by the doctors in charge. Therefore, the statistical analysis remains descriptive.
- Due to the ongoing character of the study, the status of data was frozen on September 1st, 2008, including queries solved.

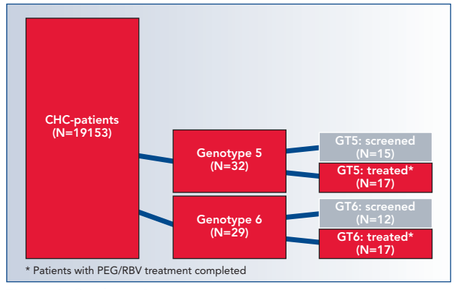

Figure 1. Study patients

Table 1: Baseline data

	Genotype 1	Genotype 5	Genotype 6	Total
N	N=11234	N=32	N=29	N=19153
Sex (male / female)	54.9% / 45.1%	41% / 59%	79% / 21%	58.4% / 41.6%
Age (mean ± SD in years)	47.3 ± 14.3	50.2 ± 12.6	44.8 ± 12.0	44.6 ± 14.0
Weight (mean ± SD in kg)	74.1 ± 14.0	72.9 ± 12.5	66.0 ± 9.8	74.2 ± 14.0
BMI (mean ± SD in kg/m^2)	25.1 ± 4.2	25.4 ± 3.0	23.8 ± 1.9	24.9 ± 4.2
Duration of infection (years)	14.7 ± 10.4	19.3 ± 10.3	14.7 ± 11.8	13.2 ± 9.8

Table 2: Virological response

	Genotype 1	Genotype 5	Genotype 6	Total
RVR	23.8% (N=346/1453)	75% (N=3/4)	50% (N=3/6)	40.4% (N=970/2402)
EVR	81.2% (N=2713/3340)	100% (N=16/16)	94% (N=15/16)	85.5% (N=4804/5617)
EOT	60.6% (N=2526/4170)	82% (N=14/17)	82% (N=14/17)	67.7% (N=4919/7266)
SVR	41.3% (N=1723/4170)	65% (N=11/17)	59% (N=10/17)	48.2% (N=3501/7266)

RESULTS

Patients

- Until September 2008 the online data documentation has been completed for a total of 19153 cHC patients (ALL) including:
  - 11887 patients with screening data and
  - 7266 patients with completed treatment with peginterferon alfa-2a (40KD) in almost all cases plus ribavirin.
- A genotype 5 was found in 32 of the 19153 cHC patients representing a prevalence of 0.17%. 17 of these patients were treated with PEG/RBV.
- A genotype 6 was found in 29 of the 19153 cHC patients representing a prevalence of 0.15%. Also 17 of these patients were treated with PEG/RBV (see Figure 1).

Baseline data

- Baseline data for the GT5 / GT6-patients were: male 41% (GT5) vs. 79% (GT6), mean age 50.2 (GT5) vs. 44.8 (GT6) years, mean BMI 25.4 kg/m² (GT5) vs. 23.8 kg/m² (GT6; see Table 1).
- The mean duration of infection was 19.3 years for GT5-patients and 14.7 years for GT6-patients (see Table 1).
- 84% of the GT5-patients and 97% of the GT6-patients were treatment naïve, compared to 86% of all patients.
- Sources of infection were (multiple answers possible; see Figure 2):
  - i.v. drug abuse: GT1 31.1% GT5 13% GT6 17%,
  - transfusion: GT1 22.7% GT5 56% GT6 10%,
  - sexual contacts: GT1 6.4% GT5 3% GT6 14%,
  - med. procedures: GT1 6.8% GT5 3% GT6 7%,
  - unknown: GT1 32.5% GT5 28% GT6 38%.
- Comorbidities were specified in 63% of the GT5-patients and in 59% of the GT6-patients. In GT5-patients cardiovascular or thyroid disease, diabetes and thrombocytopenia were predominant whereas in GT6-patients coinfections with HBV or HIV were frequent (multiple answers possible; see Figure 3):
  - cardiovascular: GT1 21.0% GT5 15% GT6 12%,
  - thyroid: GT1 6.2% GT5 15% GT6 6%,
  - diabetes: GT1 10.3% GT5 15% GT6 18%,
  - thrombocytop.: GT1 5.0% GT5 15% GT6 6%,
  - HBV coinfection: GT1 1.8% GT5 0% GT6 24%,
  - HIV coinfection: GT1 7.9% GT5 0% GT6 24%.

Rapid virological response (RVR)

- Rates of Rapid virological responses (HCV RNA not detectable) were 75% for GT5-patients and 50% for GT6-patients (see Table 2 and Figure 4).

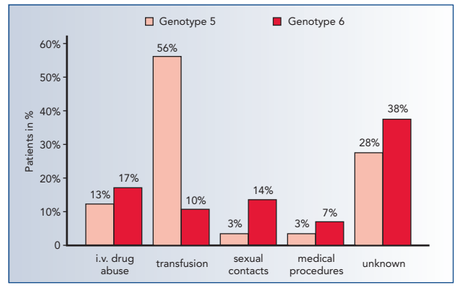

Figure 2. Main sources of infection

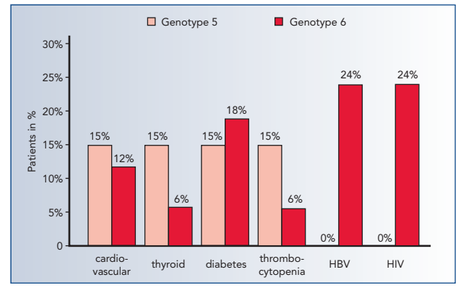

Figure 3. Frequent comorbidities

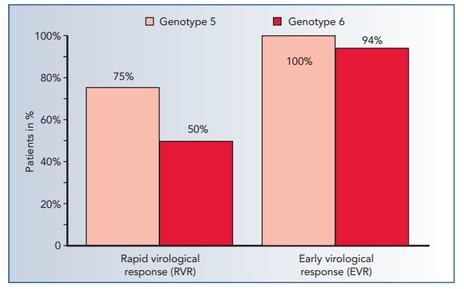

Figure 4. RVR and EVR

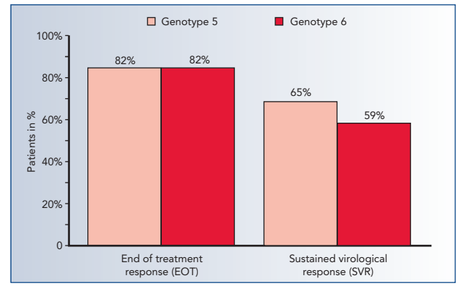

Figure 5. EOT and SVR

Early virological response (EVR)

- Rates of Early virological responses (≥2-log$_{10}$ drop in HCV RNA and/or HCV RNA ≤50 IU/ml and/or HCV RNA qualitatively undetectable) were 100% for GT5-patients and 94% for GT6-patients (see Table 2 and Figure 4).

End of treatment response (EOT)

- End of treatment response (EOT) was achieved in 82% of GT5- and GT6-patients (HCV RNA ≤50 IU/ml and/or HCV RNA qualitatively undetectable) (see Table 2 and Figure 5).

Sustained virological response (SVR)

- The Sustained virological response rate (HCV RNA ≤50 IU/ml and/or HCV RNA undetectable after 24 weeks of follow-up) was 65% for GT5-patients and 59% for GT6-patients (see Table 2 and Figure 5).

Treatment

- The mean duration of therapy was 41.3 weeks for GT5-patients and 40.5 weeks for GT6-patients.
- 65% of the GT5-and of the GT6-patients received ≥80% of the cumulative dose of PEG for 48 weeks.
- 69% of the GT5-patients but only 41% of the GT6-patients received ≥80% of the cumulative dose of RBV for 48 weeks.

Treatment discontinuations

- Two GT5- and GT6-patients (12%, each) discontinued therapy before end of treatment. Reasons for withdrawal were:
  - virological non-response (N=1 in GT6),
  - poor tolerability (N=1 in GT5) and
  - lost to follow-up (N=1 in GT5 and GT6, each).

CONCLUSIONS

- GT5 and GT6 patients are a rarity in Germany, so only due to the size of the cohort this description is possible.
- GT5 and GT6 patients appeared to differ in their baseline demographic and virological characteristics.
- However, SVR rates between both genotypes were comparably and seem to be superior to GT1 patients.

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