Potential Relevance of Rapid Viral Response for SVR and Optimisation of the Treatment of Hepatitis C (CHC) with Peginterferon alfa-2a (40KD) and Ribavirin

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INTRODUCTION

In the last time rapid virological response (RVR), defined as undetectable viral load with qualitative PCR after 4 weeks of treatment, gains big interest as positive predictive value for sustained virological response (SVR). The “Assessment of German Independent Gastroenterologists” (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

The aim of this analysis is to evaluate whether patients who achieve an RVR are over-treated with standard therapy (48 weeks in GT 1/4/5/6 and 24 weeks in GT 2/3-pats.) and would better be treated for a shorter duration.

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 doctors in charge.

RESULTS

Patients

A total of 10326 treatment naive patients screenings have been completed and 4377 of these patients (42.4%) have been treated with peginterferon alfa-2a (40KD), in almost all cases plus ribavirin.

Although there was no recommendation to measure viral load at week 4, this value was checked in 77.6% of the patients (N=1207/4377).

Baseline data

Baseline data were: male 56.1% vs. female 43.9%, mean age 42.0 years, mean weight 73.6 kg, mean BMI 24.9 kg/m² (Baseline data for RVR and Non-RVR, see in Table 1). The mean duration of infection was 11.3 years with 2 years advantage for RVR.

Comparison of SVR and withdrawal rates indicate that duration was below 37 weeks compared to 31.9% of the Non-RVR patients lack of efficacy was the main reason of withdrawal.

Sustained virological response (SVR)

Rapid virological response (RVR), HCV RNA undetectable with qualitative test (≤ 50 IU/ml): Only 609/1207 patients (50.5%) were checked with a qualitative test (< 50 IU/ml).

Concomitant diseases and social status

Aim of this analysis is to evaluate whether patients who achieve an RVR are overtreated with standard therapy (48 weeks in GT 1/4/5/6 and 24 weeks in GT 2/3-pats.) and would better be treated for a shorter duration.

Sustained virological response (SVR)

Genotype 1/4/5/6: SVR was achieved in 70.3% (N=26/37) of the patients (see Table 2).

Genotype 2/3: SVR was achieved in 78.2% (N=104/133) of the patients.

Genotype 1/4/5/6: SVR was achieved in 51.3% (N=101/197) after 24 weeks of follow-up) was found in 205/330 patients (52.9%).

Sustained virological response (SVR)

Duration of treatment

Rapid virological response (RVR)

Rapid virological response (RVR), HCV RNA undetectable with qualitative test (≤ 50 IU/ml): Only 609/1207 patients (50.5%) were checked with a qualitative test (< 50 IU/ml).

Patients

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Rapid virological response (RVR)

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CONCLUSIONS

Rapid virological response (RVR) seems to be a good positive predictive value for sustained virological response (SVR).

Treatment optimization through shorter courses of therapy (especially in GT 1/4/5/6) should only be attempted if other predictive factors apart from genotype and rapid response have carefully been assessed. Compliance and adherence should be excellent and use of a sensitive PCR is a must.

Comparison of SVR and withdrawal rates indicate that shortening of treatment duration in RVR patients can be an advantage since there may be less non-virological reasons to stop therapy.

Table 1: Baseline data

<table>
<thead>
<tr>
<th></th>
<th>RVR</th>
<th>NON-RVR</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>122</td>
<td>208</td>
<td>330</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(male / female)</td>
<td>58% / 42%</td>
<td>55% / 45%</td>
<td>56% / 44%</td>
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<tr>
<td>Age (mean ± SD in years)</td>
<td>40.2 ± 11.8</td>
<td>43.1 ± 12.9</td>
<td>42.0 ± 12.6</td>
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<tr>
<td>Weight (mean ± SD in kg)</td>
<td>71.7 ± 13.9</td>
<td>74.7 ± 14.6</td>
<td>73.6 ± 14.4</td>
</tr>
<tr>
<td>BMI (mean ± SD in kg/m²)</td>
<td>24.0 ± 3.7</td>
<td>25.4 ± 4.4</td>
<td>24.9 ± 4.2</td>
</tr>
<tr>
<td>Duration of infection (years)</td>
<td>9.8 ± 7.7</td>
<td>12.3 ± 9.7</td>
<td>11.3 ± 9.0</td>
</tr>
</tbody>
</table>

Table 2: Virological response

<table>
<thead>
<tr>
<th>Genotype</th>
<th>1/4/5/6</th>
<th>2/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>RVR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent</td>
<td>70.3%</td>
<td>78.2%</td>
</tr>
<tr>
<td>SVR (%)</td>
<td>(N=26/37)</td>
<td>(N=104/133)</td>
</tr>
<tr>
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<tr>
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<td></td>
<td></td>
</tr>
<tr>
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<td>78.2%</td>
</tr>
<tr>
<td>SVR (%)</td>
<td>(N=26/37)</td>
<td>(N=104/133)</td>
</tr>
</tbody>
</table>

Figure 1. Study patients

Figure 2. Clinical findings at baseline

Figure 3. RVR

Figure 4. SVR in patients with RVR

Figure 5. Discontinuations of therapy in GT 1/4/5/6-patients

Figure 6. Duration of treatment

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