The population based analysis of treatment of 1087 CML patients from the Czech and Slovakia centres cooperating in CAMELIA registry

Geographical distribution of data collection of CML patients in the Czech and the Slovak Republic in two projects (CAMELIA and INFINITY)

Population based monitoring of whole CML treatment provided in haematologic centres in the Czech Republic and Slovak Republic.
Total N = 1087 patients

Estimated incidence of CML in period 2000-2008 in the Czech Republic
0.7 – 1.1 / 100,000 inhabitants
Tyrosine kinase inhibitors treatment in period 1/2000 – 5/2011

<table>
<thead>
<tr>
<th></th>
<th>1. line</th>
<th>2. line</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>imatinib</td>
<td>531</td>
<td>281</td>
<td>812</td>
</tr>
<tr>
<td>dasatinib</td>
<td>5</td>
<td>133</td>
<td>138</td>
</tr>
<tr>
<td>nilotinib</td>
<td>17</td>
<td>102</td>
<td>119</td>
</tr>
</tbody>
</table>

Number of treated patients in time – prevalence on treatment

* year 2011 not shown (incomplete data)
Imatinibe treatment: cumulative incidence of responses in patients with chronic phase CML

- **CHR**: 95.5%
- **CCgR**: 86.5%
- **MMoIR**: 73.9%
- **47.1%**: according to BCR-ABL level measured in haematologic centres - not international scale

* * Imatinib - 1st line (N = 465)
* * Imatinib - 2nd line (N = 224)

* according to BCR-ABL level measured in haematologic centres - not international scale
Overall survival of chronic phase CML patients according to leading treatment approach (N = 994)

- Imatinib - 1st line (N = 465)
- Imatinib - 2nd line (N = 224)
- ASCT (N = 165)
- Other treatment (N = 119)

- 90.0% survivors at 60 months for Imatinib - 1st line
- 87.3% survivors at 60 months for Imatinib - 2nd line
- 69.8% survivors at 60 months for ASCT
- 35.0% survivors at 60 months for Other treatment
Number and cause of deaths CP CML patients according to leading treatment approach (N = 994)

<table>
<thead>
<tr>
<th></th>
<th>IM 1st line</th>
<th>IM 2nd line</th>
<th>ASCT</th>
<th>Other treatment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 465</td>
<td>N = 224</td>
<td>N = 165</td>
<td>N = 119</td>
<td>N = 973</td>
</tr>
<tr>
<td>Living</td>
<td>91.6 %</td>
<td>73.7 %</td>
<td>60.6 %</td>
<td>37.8 %</td>
<td>76.1 %</td>
</tr>
<tr>
<td>Died</td>
<td>8.4 %</td>
<td>26.3 %</td>
<td>39.4 %</td>
<td>62.2 %</td>
<td>23.9 %</td>
</tr>
<tr>
<td>- CML</td>
<td>3.0 %</td>
<td>18.8 %</td>
<td>9.7 %</td>
<td>40.3 %</td>
<td>12.1 %</td>
</tr>
<tr>
<td>- Death due to ASCT</td>
<td></td>
<td></td>
<td></td>
<td>25.5 %</td>
<td>4.2 %</td>
</tr>
<tr>
<td>- Secondary malignancies</td>
<td>1.3 %</td>
<td>1.3 %</td>
<td>0.6 %</td>
<td>0.8 %</td>
<td>1.2 %</td>
</tr>
<tr>
<td>- Comorbidity</td>
<td>3.0 %</td>
<td>4.9 %</td>
<td>1.2 %</td>
<td>7.6 %</td>
<td>3.6 %</td>
</tr>
<tr>
<td>- Other cause</td>
<td>1.1 %</td>
<td>1.3 %</td>
<td>2.4 %</td>
<td>13.4 %</td>
<td>2.8 %</td>
</tr>
</tbody>
</table>

The cause of death according to the leading treatment approach (N = 238 deaths)
CONCLUSION

1. The IM treatment results in unselected CP CML group of patients correspond to IRIS study results and also to the results of other randomized multicentric studies.

2. The OS of CP CML patients treated with IM is significantly worse in patients with high risk Sokal score.

3. The OS of patients treated with IM in 1st and 2nd line in 5 year is significantly better than OS of patients treated with ASCT.

4. The IM resistance developed in 27.1% patients treated with IM in 1st line, but in 49.7% patients treated with IM in 2nd line.

5. The risk of acceleration was:
   - 1.5% in 1st line IM treatment versus 10.2% in 2nd line IM treatment (p < 0.001)!

6. The ASCT results are as far worse when ASCT was done after IM failure (P = 0.075). The reason could be the significant difference in EBMT risk score between both groups (risk score ≥3: 21% vs. 75%!) (p < 0.001)