Efficacy and safety of pomalidomide in relapsed/refractory multiple myeloma: a retrospective analysis of the first Slovak patients.

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Abstract

Purpose

Until recently, the prognosis of patients with multiple myeloma refractory to bortezomib and lenalidomide was poor. Pomalidomide (POM) in combination with dexamethasone (DEX) has demonstrated efficacy in this patient population in clinical studies and in August 2013 EMA approved its use. In the Slovak Republic, POM is not included in the list of standard reimbursed medicinal products, but limited access is available via exceptional reimbursement and FOC program. We report the results of the first patients treated with POM.

Summarized description of the project

We present a retrospective analysis of data from patients treated in the period from June 2014 to March 2017. We initiated the treatment with oral POM 4mg/day on Days 1-21 plus oral DEX 40mg/day (or 20mg, at the discretion of the physician) on Days 1, 8, 15 and 22 of a 28-day cycles. All patients received antithrombotic prophylaxis, patients at a higher risk of infections received antibiotic, antifungal or antiviral prophylaxis. In cases of insufficient response in 6 patients a third agent was added to the combination (cyclophosphamide, bendamustine or ixazomib). The treatment continued until disease progression.
Results

In the indicated period, 9 patients gained access to the therapy based on an exceptional reimbursement and 14 patients received POM from the Marketing Authorisation Holder. Out of the total of 23 patients we obtained sufficient data for evaluation from 21 patients. Median age was 64 years (range: 44-76), all patients were refractory to lenalidomide and 20 patients were refractory or intolerant to bortezomib. At least one ASCT had been performed in 16 (76.2%) patients. After a median follow-up of 16 months (IQR: 11.0 -21.0), the efficacy outcomes were as follows: overall response rate n=14 (67%); very good partial response n=6 (29%); partial response n=8 (38%); minimal response n=1 (5%). No patient has achieved a complete remission. Stable disease was observed in 6 patients (29%). The median number of administered cycles was 8 (range: 3-28), median duration of treatment was 10 months (range: 3-34). Median PFS was 13.0 months (95% CI; 5.9-20.1). Median OS was not reached.

The most frequent adverse events included anaemia (10 patients), neutropenia (9 patients), thrombocytopenia (5 patients), infection (5 patients), and bronchopneumonia (4 patients). These adverse events were expected and successfully managed by adjustments in the treatment regimen and supportive medication. Importantly, there was no early discontinuation of the pomalidomide therapy due to adverse events.

Conclusion

Our analysis demonstrated that POM+DEX is an effective and well tolerated treatment regimen and some outcomes were better than those achieved in the registration study. Treatment until disease progression provides a possibility of controlling the disease and prolonging survival while maintaining the quality of life.
Background

- Pomalidomide has become a standard treatment in patients with relapsed/refractory multiple myeloma
- We present the efficacy outcomes of pomalidomide used in real-world clinical practice to treat the first patients in Slovakia

Methods

A retrospective analysis of 21 patients treated in 5 haematology centres in Slovakia in the period from June 2014 to March 2017

Baseline Characteristics of Patients

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years (median, range)</td>
<td>64 (44 – 76)</td>
</tr>
<tr>
<td>Sex (male/female)</td>
<td>14/17</td>
</tr>
<tr>
<td>Stage at diagnosis</td>
<td></td>
</tr>
<tr>
<td>ISS I, n (%)</td>
<td>2 (10)</td>
</tr>
<tr>
<td>ISS II, n (%)</td>
<td>13 (62)</td>
</tr>
<tr>
<td>ISS III, n (%)</td>
<td>6 (29)</td>
</tr>
<tr>
<td>Prior treatment lines (median, range)</td>
<td>4 (1 – 9)</td>
</tr>
<tr>
<td>Prior ACST, n (%)</td>
<td>16 (76)</td>
</tr>
<tr>
<td>Lenalidomide refractory, n (%)</td>
<td>21 (100)</td>
</tr>
<tr>
<td>Bortezomib refractory/intolerance, n (%)</td>
<td>20 (95)</td>
</tr>
</tbody>
</table>

Treatment

POM 4 mg PO D1-21, DEX 40 or 20 mg D 1,8,15 and 22 in 28-day cycles.
Due to insufficient response, cyclophosphamide was added to POM+DEX in 3 patients, ixazomib in 2 patients and bendamustine in 1 patient during treatment.
All patients received antithrombotic prophylaxis, high risk patients also anti-infective.

Results after a median follow-up of 16 months (IQR: 11.0 -21.0)
Best response

- **SD**: 6 (29%)
- **VGPR**: 6 (28%)
- **PR**: 8 (38%)
- **MR**: 1 (5%)

*Pts n = 21*
No. of Cycles and Duration of Treatment

**No. of Cycles**

- ≤ 5 cycles: 3 patients
- 6 – 5 cycles: 11 patients
- 11 – 15 cycles: 3 patients
- 16 – 20 cycles: 3 patients
- ≥ 20 cycles: 1 patient

**Duration of Treatment**

- ≤ 6 months: 4 patients
- 6 – 12 months: 10 patients
- 12 – 18 months: 3 patients
- 18 – 24 months: 3 patients
- ≥ 24 months: 1 patient
Progression free survival and Overall survival

![Graph showing progression free survival and overall survival over time.](image)
AEs and toxicity management

No. of pts

- Anaemia: 10
- Neutropenia: 9
- Thrombocytopenia: 5
- Infection: 5
- Bronchopneumonia: 4
- Worsening PNP: 2
- Fatigue: 2
- Diarrhea: 1
- Exacerbation of asthma: 1
- Stroke: 1
- Singultus: 1
- Gastroenteritis: 1
- Hypotension: 1
- Depression: 1
- Pulmonary artery embolism: 1
- Insomnia: 1

No. of pts

- Cycle delay: 13
- POM dose reduction: 3
- DEX dose reduction: 4
- Switch DEX to prednisone: 1
- Supportive treatment: 13
- Antibiotics: 8
- GCSF: 5
- Erythropoietin: 4
- Thrombocyte transfusion: 2
- Erythrocytes transfusion: 2
- Other treatment: 2

G4
G3
G2
G1
G not reported


**Conclusion**

- Our analysis demonstrated that POM+DEX is an effective and well tolerated treatment regimen
- Some outcomes were better than those achieved in the registration study
- Managing toxicity is essential to avoid early discontinuation due to adverse events
- Treatment until disease progression provides a possibility of controlling the disease and prolonging survival while maintaining the quality of life

**References**

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