Real-world outcomes of patients with metastatic Merkel cell carcinoma treated with second-line or later chemotherapy in a community oncology setting in the United States

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BACKGROUND
Merkel cell carcinoma
- Merkel cell carcinoma (MCC) is a rare and aggressive skin cancer that is more prevalent in elderly and immunosuppressed patients.
- In most cases, MCC is associated with Merkel cell polyomavirus (MCPyV) in other cases, tumor-associated gene expression patterns are linked to altered cytokine-inflammation (cytokine signature).

Data collection and analysis
- Patient eligibility criteria
  - Primary objective: Assess ORR based on best overall response (BOR) to 2L or later chemotherapy
  - Secondary objectives: BOR was assessed through clinical review of electronic health records (EHRs), and progression-free survival (PFS) and overall survival (OS) were typically assessed in months.

Methods

Patient eligibility criteria
- Inclusion criteria
  - Adult patients (≥18 years) diagnosed with distant metastatic MCC
  - ≥2 lines of systemic chemotherapy for distant metastatic MCC, or surgical resection in the 3 years prior to start of 2L or later chemotherapy
- Exclusion criteria
  - Immunocompromised patients were defined as follows:
  - CD4+ count <200/mm³ or any time in the 12-months prior to study period or diagnosis of HIV
  - Diagnosis of select haematologic diseases (chronic lymphocytic leukemia, multiple myeloma, or hypogammaglobulinemia) in the 5 years prior to study entry
  - Documented organ or allogeneic stem-cell transplant prior to study entry or during the follow-up period

Disease progression and treatment
- Patients with distant metastatic MCC were treated with chemotherapy in the 2L setting in the United States, the ORR was 28.5% in the immunocompetent population and 20.0% in the overall population.

Median time to progression (95% CI), months 2.2 (1.7-2.6) 2.1 (1.6-2.5)
Mean overall survival (95% CI), months 4.4 (3.9-4.9) 4.4 (3.9-4.9)

RESULTS
Patient selection
- Patient selection is shown in Figure 2, and characteristics of the immunocompetent and overall population are shown in Table 1.
- Outcomes following 2L or later chemotherapy in patients with distant metastatic MCC were assessed in 14 immunocompetent patients and 6 immunocompromised patients:
  - Of the 6 immuno-compromised patients, 1 patient (16.7%) was previously diagnosed with melanoma and 3 patients (50.0%) had received immunosuppressive treatment during the 28 days prior to qualification for this study.
  - Of the 14 immuno-competent patients, 1 patient (7.1%) had received chemotherapy as a 2L treatment, and 1 patient (7.1%) had received chemotherapy as a 2L treatment.

Median duration of 2L or later treatment was 3.5 days (range: 2.1-10) for the immunocompetent population and 46.5 days (range: 2.1-14) for the overall population.

Median overall survival (95% CI), months 4.4 (3.9-4.9) 4.4 (3.9-4.9)

CONCLUSIONS
- 2L or later chemotherapy provided limited benefit to patients with MCC:
  - The ORR in the overall population was 20.0% (4 of 20 patients), and all responses occurred in patients classified as immunocompetent.
  - The 6-month DRR was 0%, median DOR was 2.1 months.

New treatment options with durable benefit in patients with distant metastatic MCC progressing after 1L treatment are needed.

DISCUSSION
- In this retrospective analysis of 20 patients with distant metastatic MCC treated with chemotherapy in the 2L setting, the ORR was 28.5% in the immunocompetent population and 20.0% in the overall population.

Figures 4 and 5 depict the survival outcomes and response rates for the 2 patient populations.

Table 1. Patient characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Immunocompetent (n=14)</th>
<th>Overall (n=20)</th>
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</thead>
<tbody>
<tr>
<td>Sex, %</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Age group, %</td>
<td>55-64</td>
<td>65+</td>
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<tr>
<td>Stage at diagnosis</td>
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<td></td>
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<td>Primary tumour location</td>
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<tr>
<td>ECOG PS*</td>
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<td>1</td>
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<tr>
<td>Treatment type</td>
<td>Chemotherapy</td>
<td>Chemotherapy</td>
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Table 2. Best overall response to 2L or later chemotherapy

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Immunocompetent (n=14)</th>
<th>Overall (n=20)</th>
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</thead>
<tbody>
<tr>
<td>Complete response, %</td>
<td></td>
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<tr>
<td>Stable disease, %</td>
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<tr>
<td>Progressive disease, %</td>
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<td>Net worsening*</td>
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Figure 4. OS in patients receiving 2L or later chemotherapy

Figure 5. Retrospective analysis of PFS

REFERENCES

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DISCLOSURES
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