Clinical Utility of Encoprectic Tumor Analysis to Treat Patients with Brain Metastasis in Recurrent Cancers

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Clinical utility of data on Cancer genetics offers a commercial service in the area of Oncology.

BACKGROUND
There are limited systemic treatment options patients with solid organ tumors with brain metastases. Such cases are also associated with poor prognoses. We evaluated the efficacy of Encoprectic Tumor Analysis (ETA)-guided personalized treatments in patients with advanced refractory malignancies having brain metastases. ETA interrogates tumor tissue for gene mutations, gene expression and chemoresistance towards treatment agents. ETA findings are integrated and harmonized to generate ultra-personalized treatment regimens.

APPROACH
Nine (9) patients with advanced refractory solid organ malignancies and brain metastases had previously availed of ETA from the Study Sponsor, based on which they had received personalized treatments. Treatment response was determined retrospectively from radiological scans (PET/CT) and brain MRI done prior to start of treatment (≤4 days) and at subsequent follow-up. Findings of most recent follow-up scans were used to determine Objective Response Rate (ORR), Disease Control Rate (DCR) and Progression Free Survival (PFS).

DEMOGRAPHICS OF STUDY POPULATION

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Cancer Type</th>
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</thead>
<tbody>
<tr>
<td>Male</td>
<td>8</td>
<td>Lung</td>
</tr>
<tr>
<td>Female</td>
<td>6</td>
<td>Breast</td>
</tr>
</tbody>
</table>

Prior Therapies

<table>
<thead>
<tr>
<th>Surgery</th>
<th>Maximum</th>
<th>Duration</th>
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<tbody>
<tr>
<td>6</td>
<td>14</td>
<td>17</td>
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</tbody>
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ETAS INDICATIONS AND TREATMENT AGENTS

- R2.1: Relationship to Selection of Treatment Agents
- R3.4: Survival in Progression Systemic Total

RESPONSE TO ETA-GUIDED TREATMENTS

- R5.2: Systemic Brain response in patients with advanced refractory malignancies and brain metastases
- R6.3: Response to Treatment, PFS observed in patients and for overall survival in 1 patient

FINDINGS
- ETA identified vulnerabilities in solid organ tumors with brain metastases.
- ETA guided treatments were well tolerated with no Grade IV/VA adverse events.
- All brain metastases were stable or regressed, increase in size or number of brain metastases were not observed in any patient.

CONCLUSION
ETA-guided combination treatments led to significant (100%) clinical and survival benefits in all patients. ETA offered viable and effective treatment options for such patients.