HYPOMAGNESEmia AS A POSSIBLE MARKER OF EFFICACY IN PATIENTS TREATED WITH CETUXIMAB IN HEAD AND NECK CANCER


BACKGROUND

It has been reported that the determination of magnesium levels could be used as a surrogate marker of efficacy in chemotherapy regimens with cetuximab.

PURPOSE

We investigated hypomagnesemia caused by cetuximab as a predictor of efficacy and outcome in patients affected by head and neck cancer in first-line treatment.

MATERIAL AND METHODS

» Retrospective observational study (Study period: November 2008-October 2012).
» Patients with head and neck carcinoma treated with cetuximab in first-line treatment, which had magnesium determinations from the start of treatment until one month after the end of treatment with cetuximab.

RESULTS

» 14 patients (92.8% male)
» Median age: 61 years (range: 21-86)
» Diagnosis:
  - Oral cavity carcinoma (28.6%)
  - Laryngeal carcinoma (21.4%)

<table>
<thead>
<tr>
<th>Hypomagnesemia during the treatment (&lt;1.7mg/dl)</th>
<th>No Hypomagnesemia</th>
<th>Overall Survival</th>
<th>Remission Rate</th>
<th>Progression Free Survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypomagnesemia (n=6)</td>
<td>No Hypomagnesemia (n=9)</td>
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<tr>
<td>Remission rate</td>
<td>66.7%</td>
<td>37.5%</td>
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<tr>
<td>Overall survival (mean; IC95%)</td>
<td>34.8 months (18.8-50.9)</td>
<td>22.4 months (11.9-32.9)</td>
<td>0.532</td>
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<tr>
<td>Progression freee survival (Mean; IC95%)</td>
<td>34.5 months (18.1 -50.9)</td>
<td>19.7 months (7.8-31.5)</td>
<td>0.456</td>
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</tbody>
</table>

CONCLUSIONS

Despite the small number of patients studied, hypomagnesemia could be a marker of efficacy of cetuximab in first line therapy in patients with head and neck cancer. Determination of magnesium levels should be performed routinely in patients treated with cetuximab.