IFCT-GFPC-0701 MAPS trial, a multi-center randomized phase II/III trial of pemetrexed-cisplatin with or without bevacizumab in patients with malignant pleural mesothelioma (MPM): Results of the phase II part.

G. Zalcman, J. Margery, A. Scherpereel, P. Astoul, I. Monnet, B. Milleron, C. Creveuil, M.P. Lebitasy, M. André, D. Moro-Sibilot, J. Mazieres on behalf of the French Intergroup of Thoracic Cancer Research (IFCT)

**BACKGROUND**

Mesothelioma highly express VEGF & VEGF-R

VEGF is an autocrine growth factor in mesothelioma


Efficacy of Bevacizumab + Pemetrexed in SCID mice with orthotopically implanted human mesothelioma cells

Li et al. CCR 2007, 13: 5918-25

**PATIENT ELIGIBILITY**

Histologically proved Pleural Mesothelioma

- 9 pleural biopsies
- broncoscopy with or without pleuroscopy (pleurodesis with talc poultice not recommended to avoid interference with tumor evaluation)
- trans-pneumonic CT-guided biopsy only if bronchoscopy judged as not possible: tumoral solid mass without liquid

Written informed consent

Prophylactic radiation therapy of all organs (3 to 7 Gray) before chemotherapy

At least one evaluable or measurable CT lesion

Age ≥ 16 years and ≤ 75 years

WHO Performance Status ≤ 2

Weight loss < 10% usual weight within 3 months prior to enrollment

Adapted hematological and liver functions, Adequate renal function: creatinine clearance > 50 ml/min, International Normalized Ratio (INR) ≤ 1.5, Prothrombin time (PTT) < 1.5 x ULN

**ACCRUAL**

111 patients enrolled in 30 active sites on January 2010, since Feb. 2008

2 patients were declared ineligible

1 weight loss > 10%, 1 history of previous cancer

**RESULTS**

**TOXICITY**

<table>
<thead>
<tr>
<th>Patients with maximal toxicity grade 3-4</th>
<th>Pemetrexed (n=147)</th>
<th>Pemetrexed-bevacizumab (n=148)</th>
<th>Total (n=295)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>18 (12.4%)</td>
<td>15 (10.1%)</td>
<td>33 (11.0%)</td>
</tr>
<tr>
<td>Yes</td>
<td>71 (48.6%)</td>
<td>26 (16.5%)</td>
<td>97 (32.9%)</td>
</tr>
<tr>
<td>P</td>
<td>0.0227</td>
<td></td>
<td>0.0227</td>
</tr>
</tbody>
</table>

**EFFICACY**

**CONCLUSIONS**

- Acceptable toxicity profile for Pemetrexed-cisplatin-bevacizumab triplet in MPM
- Statistical Endpoints reached in the phase 2 part of MPM trial
- IDMC recommendation for the beginning the phase 3 part of the study is awaited (June 2010)
- Biomarkers ancillary study ongoing