EVALUATION OF CLINICAL DEVELOPMENT OF TWO PATIENTS WITH URINARY BLADDER CANCER BEFORE AND AFTER CHEMOTHERAPY

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Background
Urinary bladder cancer is formed in the tissues of the bladder. They are usually transitional carcinomas which start from the cell layer surrounding the inner bladder. Other types include squamous cell carcinoma (cancer that begins in thin, flat cells) and adenocarcinoma (cancer that begins in the cells that make and release mucus and other fluids). The purpose of this study is the recording of the number of circulating tumor cells of two patients with bladder cancer over time, before and after chemotherapy.

Materials and methods
Non-hematologic origin cells were isolated from the blood of 2 male patients with bladder cancer. Afterwards, from these cells circulating tumor cells (CTCs) were isolated and cultured in appropriate medium. Simultaneously the blood of patients was analyzed by flow cytometry, by using specific markers for identification of CTCs. In order to export results, the two patients were assessed on the number of circulating tumor cells after three and six months respectively, before and after chemotherapy.

Results
The results showed that there is similar variation of the number of circulating tumor cells in the two patients with urinary bladder cancer pre and post chemotherapy.

<table>
<thead>
<tr>
<th>SAMPLE</th>
<th>STAGE</th>
<th>Previous # of CTCs</th>
<th>Current # of CTCs (date of follow up)</th>
<th># of CTCs after follow up</th>
<th>Clinical evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>patient 1</td>
<td>Unknown</td>
<td>14/6/2011, 2,9cells/ml</td>
<td>12/9/2011, 3,4cells/ml</td>
<td>18/1/2012, 3cells/ml</td>
<td>Stable disease, Progress of disease</td>
</tr>
</tbody>
</table>

Table 1. Variation of number of CTCs over time in two patients with bladder cancer.

Conclusion
Bladder cancer is the fifth leading type of cancer worldwide. Epidemiological data show that bladder cancer affects more the male population. In the present study we assessed the clinical development of two patients with bladder cancer pre and post chemotherapy over time.

References