AIM:
Investigate, in patients with differentiated thyroid cancer (DTC) if thyroglobulin values, immediately before and six months post radioiodine ablation are good predictors of disease progression.

MATERIALS AND METHODS:
Basal thyroglobulin values (Tg-B) and rhTSH stimulated thyroglobulin (Tg-S) before ablation (0) and six months later (6) from 142 DTC patients, with post-surgical ablation therapy between 2003 and 2009 with a follow up of five years, were analyzed.

RESULTS:

<table>
<thead>
<tr>
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<th>After 5 years of follow up</th>
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</thead>
<tbody>
<tr>
<td>FD (free of disease)</td>
<td>121 patients (85.2%)</td>
</tr>
<tr>
<td>PD (persistent disease)</td>
<td>15 (10.6%)</td>
</tr>
<tr>
<td>Died</td>
<td>6 patients (4.2%)</td>
</tr>
</tbody>
</table>

BASAL TIME:

- A Tg-B-0 <0.2 ng / ml. was present in 39 patients (27.5%)
  - only one (2.5%) has ED because of positive antibodies
  - only one (2.5%) needed retreatment.
- A Tg-B-0 > 0.2 ng / ml, was present in the 103 patients (72.5%)
  - 21 patients (20.4%) had ED
  - 27 (26.2%) needed retreatment
- A Tg-S-0 <1 ng / ml was found in 34.8%
  - one (2.6%) was ED
  - one (2.6%) required retreatment.
- A Tg-S-0 > 1 ng / ml was in 65.2%
  - 22.5% was considered ED
  - 26.7% have required retreat.

6 MONTH LATER

- Tg-B-6 ablation > 0.2 ng / ml, 40% was ED and 46.7% required retreatment and when
- Tg-S-6-ablation > 1 ng / ml, 56% was ED, and 67% required retreatment

<table>
<thead>
<tr>
<th></th>
<th>Tg-B-0</th>
<th>Tg-S-0</th>
<th>Tg-B-6</th>
<th>Tg-S-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>SENSITIVITY</td>
<td>31</td>
<td>42</td>
<td>77</td>
<td>87</td>
</tr>
<tr>
<td>SPECIFICITY</td>
<td>95</td>
<td>94</td>
<td>94</td>
<td>86</td>
</tr>
<tr>
<td>NPV</td>
<td>97</td>
<td>97</td>
<td>95</td>
<td>97</td>
</tr>
<tr>
<td>PPV</td>
<td>20</td>
<td>27</td>
<td>75</td>
<td>56</td>
</tr>
</tbody>
</table>

• Tg-B-0 lower than 0.2 is the parameter that shows a higher specificity (95%) with a high NPV (97%), while Tg-S-6 lower than 1ng/ml is the one that has higher sensibility(87,2%) with a PPV of 56%.

CONCLUSION:
- The Tg-B-0 has a high specificity but low sensibility in predicting the evolution of disease.
  - When Tg-B-0<0,2mg/ml only 5% of the patients are PD after first ablation.
- The Tg-S-0: has not provides additional information.
- After radioiodine ablation, Tg-S-6 has the higher sensibility (87%) and high specificity (86%).