

# Thyroglobulin (Tg) levels post initial treatment predict the recurrence risk in differentiated thyroid carcinoma (DTC)

**Authors\*:** Teresa Ruíz de Azúa. Blanca González Jauregui. Pedro González Fernández. Javier Santamaría Sandi. Sonia Gaztambide Saenz. \*H. U. Cruces, Barakaldo.

## OBJECTIVE

To evaluate if Tg levels after DTC treatment (total thyroidectomy and radioiodine ablation) can predict its prognosis in the long term.

## METHODS

Tg after rh-TSH was measured in 229 DTC patients with negative neck ultrasonography after treatment. The group was followed up until tumour recurrence or for a minimum time of 12 month (mean  $\pm$  SD = 63  $\pm$  37 months). Patients did not receive any additional treatment during this period.

Test response was classified in three categories according to stimulated Tg levels. All selected cases had negative Tg-antibodies.

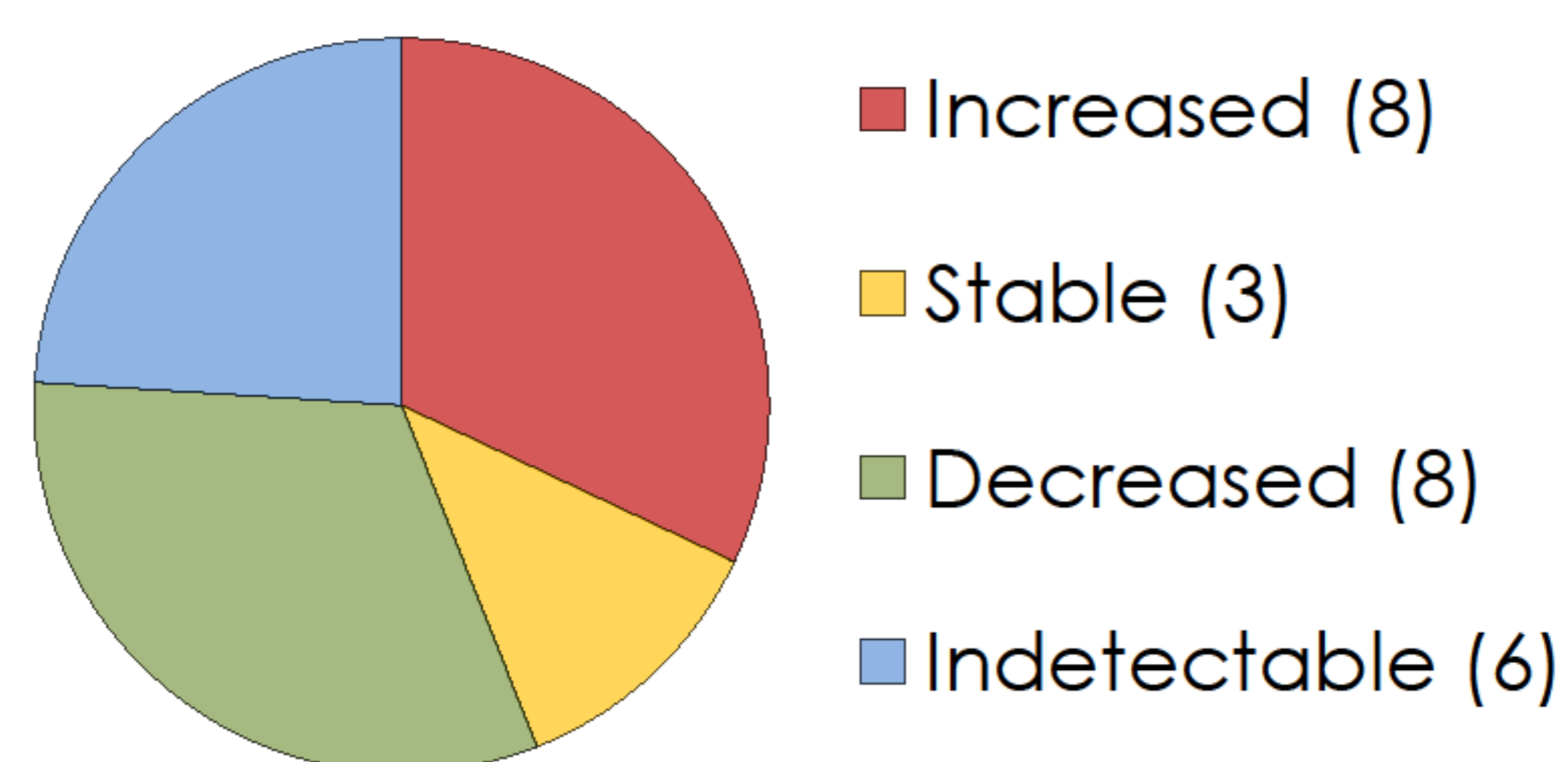
## RESULTS

|                | Stimulated Tg<br><1 ng/mL | 1-10 ng/mL | >10 ng/mL | Total |
|----------------|---------------------------|------------|-----------|-------|
| Recurrence YES | 1 (0,5 %)                 | 8 (21,6 %) | 7 (70 %)  | 16    |
| Recurrence NO  | 181                       | 29         | 3         | 213   |
| Total          | 182                       | 37         | 10        | 229   |

Tumour recurrence was localized: 14 lymphadenopathy, 1 lung metastasis, 2 local.  
Time recurrence: 3 - 104 months (mean: 41, median 34)

We studied evolution (measurement every 1-2 years) of stimulated Tg levels in patients with initial positive levels but no tumour recurrence detected (n = 32; 7 cases not measured).

Tg levels increased only in 8 cases (32%), as detailed in the graphic.



## CONCLUSIONS

When stimulated Tg levels post-treatment are undetectable, the risk of recurrence is minimal. This risk increases according to Tg levels.

However, it has to be considered that a positive Tg level can decrease and even become negative during the follow-up.

