Author's response to reviews

Title: Diagnostic accuracy of basal TSH determinations based on the intravenous TRH stimulation test: An evaluation of 2570 tests and comparison with the literature

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Diagnostic accuracy of basal TSH - Response to the reviewers
Dr. Moncayo, April 10th, 2007.

1. Reviewer: Beat Muller:

Data on the patients has been added as follows (page 4):

All patients were ambulatory and did not present any severe disease nor were taking any medication that could interfere with thyroid function tests. Ninety percent of patients were consulting the service due to irregularities of the menstrual cycle, or infertility. Ten percent of cases corresponded to menopausal women. Patients with known thyroid disease were excluded.

Symptoms of the patients:

Patients with symptoms suggestive of thyroid disease were seen directly at the Thyroid Out-Patient unit. All other subjects unspecific symptoms. Present practice shows no specific symptomatology for patients with TSH between 3.0 and 3.5. Symptoms are sometimes contradictory such as palpitations and nervousness.

The abbreviation for thyroid hormones was explained.

2. Reviewer: Georg Brabant:

The data refering to the preceeding internal evaluations of thyroid function tests has been described briefly in the text. The starting point was an evaluation of 2870 patients in 1993. This data was presented in Innsbruck at a local symposium, and, unfortunately, it was not published. In 2001-2003 we analysed data from 12838 patients. All of these 15708 had been completely investigated at the Thyroid Out-Patient Unit of the Department of Nuclear Medicine. These are the observations that provided the basis. We do not consider these observations to be assumptions. The additional text in the manuscript is as follows:

The definition of these levels comes from a detailed internal evaluation of both clinical and laboratory data of 2870 patients being investigated at the out-patient unit of the Department of Nuclear Medicine, University of Innsbruck in 1993. The data from these patients was analyzed in relation to age, gender, iodine excretion, scintigraphy, sonography, and thyroid function tests (data not shown). These criteria were also used in a later analysis of 12,838 subjects done 2003 [1]. Altogether a total of 15708 subjects provide the foundation for the present analysis.
**Additional information for the reviewers**

Due to the recent controversies in relation to TSH levels (2-6) we have also analysed data from paediatric patients (> 1000) as well as 2180 pregnant women. The definitions we have applied on the population described in the manuscript are consistent with the results of these 2 additional studies.

Finally a sequential analysis of 145 healthy Austrian winter athletes is currently being done. TH levels appear to remain constant over a period of time of 3-5 years.

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**Reference List**


