lins, serology for syphilis, *Borrelia* and *Brucella*, immunocyto-
tology, and beta-2-microglobulin were normal. No changes were 
found in cerebrospinal fluid. A CT scan of the chest and 
abdomen, a gallium scan, and a whole body bone scan 
showed no relevant findings. Because of negative results in 
supplemental tests and lack of clinical response to repeat 
steroid treatment, lesion was biopsied. Histological findings 
were consistent with diffuse large B-cell lymphoma, positive 
for CD20 and DC79, with a proliferation index Ki-67 > 80%. 

Primary central nervous system lymphomas are usually 
diagnosed in people aged 45–70 years, with a mean age at 
diagnosis in the fifth decade, as occurred in our patient.7 
Symptoms at diagnosis included headache, blurred vision, 
motor problems, and cranial nerve changes. The parasellar 
location is extremely rare, and few cases have been reported 
in the literature. Most of these were B-cell lymphomas, 
of which approximately 40% were diffuse large B-cell 
lymphomas. Hypothalamic–pituitary dysfunction is common at 
diagnosis.8 Standard combination chemotherapy, helpful for 
the treatment of systemic lymphomas, is ineffective. Treatment 
of choice is usually methotrexate, or radiation therapy 
if this drug fails.9 

Urine could not be alkalinized in our patient, and she 
was therefore not treated with methotrexate because of 
its nephrotoxicity. After several radiation therapy courses, 
she had a favorable response, with a significant decrease 
in lesion diameter. Panhypopituitarism, present since the 
initial episode, was not reversed.

The unique characteristic of our case was hypothalamic 
location of the lesion, as well as the remission time after 
corticosteroid therapy, up to four years. Initial response to 
corticosteroids has been reported in cerebral lymphomas in 
up to 70% of the cases. However, clinical and radiographic 
 improvement is usually transient, and the disease tends to 
recur a few months after drug discontinuation.10 Although 
our patient was only sporadically treated with dexameth-
asone when symptoms occurred, the initial remission was 
sustained for four years.

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**Reference values and universal screening of thyroid dysfunction in pregnant women**

**Valores de referencia y cribado universal de la disfunción tiroidea en la mujer gestante**

Universal thyroid function screening in pregnant women is one of the most controversial issues in current endocrin-
ology. In contrast to the American Thyroid Association (ATA) 
clinical guidelines, which recommend selective screening in 
the population at risk,1 other scientific societies, including 
the Spanish Society of Endocrinology and Nutrition (SEEN), 
advocate universal screening in the pregnant population.2 
However, reference ranges for thyroid-stimulating hormone (TSH) and free thyroxine (FT4) levels in pregnant women proposed by the ATA are assumed without 
the necessary critical assessment. An article published by 
Lombardo Grifol et al. emphasizes this, as had already been 
done by the prior studies published in the dissemination organ of SEEN.3

It is particularly significant that TSH reference ranges in 
Spanish populations from very distant geographical areas, 
obtained using different laboratory procedures and statisti-
cal methods, greatly differ from those recommended by
international guidelines (TSH < 2.5 μIU/ml during the first trimester of pregnancy) and are very similar to each other.1-8

On January 2013, the Hospital Clínico Universitario in Valladolid started universal thyroid function screening in pregnancy in collaboration with the departments of gynecology and obstetrics and clinical laboratory. During 2013, TSH and FT4 levels and thyroid autoimmunity were retrospectively tested in 1,316 women (mean age: 32.6 ± 5.6 years) in the week 10 of pregnancy (Cobas® 6000, Roche Diagnostics). One hundred and sixty women were excluded for positive autoimmunity (115 women, 8.7%), prior thyroid disease and/or treatment modifying thyroid profile. Reference ranges for TSH and FT4 in week 10 of pregnancy were calculated according to recommendations by the International Federation of Clinical Chemistry (IFCC). For this, distribution of FT4 and TSH levels was normalized by logarithmic transformation, and confidence intervals for the 2.5th and 97.5th percentiles, corresponding to the lower and upper limits of the reference values respectively, were subsequently calculated.9

The results recorded in our population are similar to those previously reported for the Spanish population, with minimal differences attributable to the gestational week, the procedure used, and the area of origin (Table 1),1-8 but significantly differ from those recommended by the ATA and SEEN.1,2 This striking situation is not unique, because recent studies reported similar reference ranges in healthy pregnant women from other countries. This stresses the importance of calculating reference ranges for each laboratory.10 In this regard, it should be noted that American and Spanish guidelines advise TSH levels under 2.5 μIU/ml only if no reference values are available for procedures used and for the same study population during the first trimester. However, in light of the results, hormone levels in Spanish populations are consistently higher regardless of the procedure used and the population tested. This should be reflected in the future in the clinical guidelines/recommendations published by the SEEN in this regard. It should not be forgotten that no adequate scientific evidence is available on the efficacy of treatment for subclinical hypothyroidism with TSH levels higher than 2.5 μIU/ml in pregnant women.11,12

Setting a given reference range obviously conditions clinical practice, but also has important economic and care implications. During 2013, an upper TSH limit of 2.5 μIU/ml would have implied monitoring and treatment with levothyroxine of 436 pregnant women of our population, i.e. 38%, while 130 women (11%) would have been treated based on the normal criteria calculated for our area (TSH ≥ 4.05 μIU/ml).

It should also be stressed that only 62 (5%) of all women diagnosed with primary hypothyroidism during 2013 had TSH levels ≥ 5 μIU/ml, and of these, only 7 pregnant women (0.6%) had TSH levels ≥ 10 μIU/ml which could be classified as having frank hypothyroidism.

In conclusion, we think that universal screening for thyroid dysfunction is warranted, because it allows for adequate diagnosis and management of a small but significant proportion of pregnant women with hypothyroidism which could affect the adequate course of pregnancy and, probably, fetal and infant development.11,12 Universalization of screening requires, however, calculation of reference val-

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### Table 1

<table>
<thead>
<tr>
<th>Study, year of publication</th>
<th>Population Gestational weeks</th>
<th>Laboratory No.</th>
<th>TSH (μIU/ml)</th>
<th>FT4 (ng/dL) P 2.5th (90% CI)</th>
<th>FT4 (ng/dL) P 97.5th (90% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bocos-Terraz et al., 2009</td>
<td>&lt;14</td>
<td>Abbot</td>
<td>481</td>
<td>0.41</td>
<td>2.63</td>
</tr>
<tr>
<td>Viñas et al., 2009</td>
<td>9-13</td>
<td>Bayer</td>
<td>178</td>
<td>0.12</td>
<td>4.75</td>
</tr>
<tr>
<td>Corral et al., 2009</td>
<td>11-13</td>
<td>Caragena</td>
<td>460</td>
<td>0.13</td>
<td>3.77</td>
</tr>
<tr>
<td>García Guadiana et al., 2009</td>
<td>7-10</td>
<td>Beckman</td>
<td>305</td>
<td>0.23</td>
<td>4.18</td>
</tr>
<tr>
<td>Aller Granda et al., 2013</td>
<td>6-12</td>
<td>Roche</td>
<td>204</td>
<td>0.17</td>
<td>4.13</td>
</tr>
<tr>
<td>Santiago et al., 2012</td>
<td>8-13</td>
<td>Valencia</td>
<td>219</td>
<td>0.497 (0.415-0.584)</td>
<td>3.595 (3.298-3.914)</td>
</tr>
<tr>
<td>Lombardo Grifol et al., 2013</td>
<td>6</td>
<td>Bayer</td>
<td>1156</td>
<td>0.27 (0.159-0.346)</td>
<td>4.05 (3.972-4.170)</td>
</tr>
<tr>
<td>Díaz-Soto et al., 2014</td>
<td>10</td>
<td>Oviedo</td>
<td>1156</td>
<td>0.27 (0.159-0.346)</td>
<td>4.05 (3.972-4.170)</td>
</tr>
</tbody>
</table>

Data from this study are given in italics. CI: confidence interval; P: percentile; TSH: thyroid-stimulating hormone; FT4: free thyroxine.
ues for the population and the laboratory procedure of each hospital in a given gestational week. This analysis should not be considered as an exceptional method in the setting of research studies, but as a test of maximal interest for care, and is mandatory before any system for screening gestational thyroid dysfunction is implemented. Setting a universal cut-off point without considering the characteristics of each population (iodine intake, subclinical autoimmune disease, etc.) not only implies a high care overload with its attendant financial expense, but also a significant psychological burden during a especially sensitive period, as well as overtreatment of a great proportion of the population with the resultant additional risk.

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Conflicts of interest

The authors state that they have no conflicts of interest.

References


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Descubrimiento de un pseudotumor inflamatorio cervical asociado a un cáncer papilar de tiroides mediante (18)F-FDG PET

Descubrimiento de un pseudotumor inflamatorio cervical asociado a un cáncer papilar de tiroides mediante (18)F-FDG PET

Inflammatory pseudotumor (IPT), also called plasma cell granuloma, is a rare benign lesion of uncertain origin. IPT most commonly affects the lungs, followed by the liver and spleen, although this lesion may occur in almost any location. The etiology of IPT is unknown but is believed to be the result of chronic inflammation caused by long lasting aggression. This process can be asymptomatic or associated with a spectrum of nonspecific symptoms.

No imaging technique has been established as the standard for the diagnosis of IPT. However, there is some literature evidence on the advantage of (18)F-fluorodeoxyglucose positron-emission tomography (18F-FDG-PET) in the diagnosis of this usually otherwise elusive lesion.

We present a 39-year-old man who presented to our center with a past history of intermittent fever (up to 39°C), chills, fatigue and generalized weakness associated with frequent episodes of diarrhea. He reported that over the past 9 months he had been admitted three times to his local hospital for evaluation. The main findings from these admissions were recurrent high erythrocyte sedimentation rate, elevated serum C-reactive protein levels and serum liver