

lins, serology for syphilis, *Borrelia* and *Brucella*, immunocytology, and beta-2-microglobulin were normal. No changes were found in cerebrospinal fluid. A CT scan of the chest and abdomen, a gallium scan,^{6,7} 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 dexamethasone 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 endocrinol-



ogy. 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 statistical methods, greatly differ from those recommended by

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international guidelines (TSH < 2.5 μ UI/ml during the first trimester of pregnancy) and are very similar to each other.³⁻⁸

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),³⁻⁸ 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 μ UI/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 μ UI/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 μ UI/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 \geq 4.05 μ UI/ml).

It should also be stressed that only 62 (5%) of all women diagnosed with primary hypothyroidism during 2013 had TSH levels \geq 5 μ UI/ml, and of these, only 7 pregnant women (0.6%) had TSH levels \geq 10 μ UI/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-

Table 1 Normal TSH and FT4 levels in the Spanish population with negative autoimmunity.

Study, year of publication	Population	Gestational weeks	Laboratory	No.	TSH (μ UI/mL)		FT4 (ng/dL)	
					P 2.5th (90% CI)	P 97.5th (90% CI)	P 2.5th (90% CI)	P 97.5th (90% CI)
Bocos Terraz et al., 2009 ⁴	Saragossa	<14	Abbot	481	0.41	2.63	0.83	1.38
Vila et al., 2010 ⁵	Catalonia	9	Bayer	178	0.12	4.75	0.80	1.60
García Guadiana et al., 2010 ⁶	Cartagena	11-13	Roche	400	0.13	3.71	0.89	1.50
Santiago et al., 2011 ⁷	Jaén	7-10	Beckman	305	0.23	4.18	0.60	1.06
Aller Granda et al., 2013 ⁸	Oviedo	6-12	Roche	264	0.17	4.15	-	-
Lombardo Grifol et al., 2013 ³	El Bierzo	8-13	Bayer	219	0.497 (0.415-0.584)	3.595 (3.298-3.914)	0.90 (0.88-0.92)	1.42 (1.39-1.45)
Díaz-Soto et al., 2014	Valladolid	10	Roche	1156	0.27 (0.159-0.346)	4.05 (3.973-4.170)	0.94 (0.92-0.95)	1.50 (1.47-1.55)

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.⁶ 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.

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(¹⁸F)-FDG PET discovered an elusive cervical inflammatory pseudotumor associated with a papillary thyroid cancer



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

Inflammatory pseudotumor (IPT), also called plasma cell granuloma, is a rare benign lesion of uncertain origin.¹ IPT most commonly affects the lungs, followed by the liver and spleen, although this lesion may occur in almost any location.² The etiology of IPT remains unknown but is believed to be the result of chronic inflammation

caused by long lasting aggression. This process can be asymptomatic² 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 ¹⁸F-fluorodeoxyglucose positron-emission tomography (¹⁸FDG-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