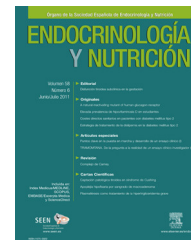


# ENDOCRINOLOGÍA Y NUTRICIÓN

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## EDITORIAL

### Importance of ultrasound in a department of endocrinology<sup>☆</sup>

### Relevancia de la ecografía en un servicio de endocrinología

Iñaki Argüelles\*, Santiago Tofé

Servicio de Endocrinología y Nutrición, Hospital Universitari Son Espases, Palma de Mallorca, Spain

'Thyroid ultrasound – just do it'. This was the title of the editorial published in 2004 in *Thyroid*,<sup>1</sup> which reported the limited use of ultrasound by American endocrinologists and stressed the need to adopt it as soon as possible. Now, eight years later, our time has come.

Multiple variables have conditioned our working life during the past decade, including occupational status, work centers, and so on. However, the most transcendental variable, representing a radical change in our daily practice, was the incorporation of neck ultrasound to our care activity in 2007, which made our previous management of thyroid disease obsolete. This change was based on the different applications of ultrasound.

(a) Nodular thyroid disease: this has a prevalence greater than 50%, but less than 5% of nodules are malignant,<sup>2</sup> and adequate examination is therefore required. There are three mainstays for the management of nodular thyroid disease: measurements of TSH levels, high-resolution ultrasound and, based on the latter, fine needle aspiration (FNA).<sup>3</sup> In most cases, TSH levels have already been measured when patients are seen by the endocrinologist, who must choose between two main options.

The first and most usual option is to request at the first visit an ultrasound examination at the radiology department. At a second visit, the examination is assessed and

patients are again referred for FNA if appropriate. This is conditioned by coordination between other departments such as pathology and radiology, with a resultant delay.

If the second option is decided upon, as now occurs with increasing frequency, the endocrinologist, after clinical assessment of the patient, performs the ultrasound examination and decides on the need for ultrasound-guided FNA, which will be performed by him/herself. In turn, cytology may be performed in two ways:

- jointly with the pathologist, thus minimizing nondiagnostic punctures (5.3%) as reported by Castells et al.<sup>6</sup> The disadvantage of this is the greater demand as regards scheduling and coordination.
- immediately, at the first visit, thus decreasing waiting time to zero, as reported by our group in 2010.<sup>5</sup> In this case, the disadvantage is the lower cytological yield: in recent years, approximately 10% of FNAs have not been sufficient to reach diagnosis.

Regardless of how cytology is done, the endocrinologist's option is undoubtedly the optimal one because it is the clinician who decides on its adequate management, based on all the variables (TSH levels, ultrasound, and clinical data).

Even in the ideal scenario of an excellent circuit and coordination between endocrinology, radiology, and pathology providing very good results,<sup>7</sup> the option of ultrasound performed by endocrinologists themselves is simpler, less expensive and, thus, more efficient.

- (b) Thyroid carcinoma: ultrasound examination is essential both for preoperative staging and subsequent follow-up.<sup>4</sup> Again, this is a process where endocrinologists take the clinical decisions, but it often depends on the size

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\* Corresponding author.

E-mail address: [inaki.arguelles@ssib.es](mailto:inaki.arguelles@ssib.es) (I. Argüelles).

of the waiting list and the saturation point of the radiology department. This is in contrast with the current situation in our hospital, where ultrasound examination and ultrasound-guided FNA, including needle wash for thyroglobulin or calcitonin in the event of cervical adenopathies, are performed immediately.

- (c) In primary hyperparathyroidism, diagnosis of localization has dramatically improved since ultrasound was implemented at our department to more than 90% of cases amenable to surgery, thus facilitating minimally invasive surgery.<sup>8</sup>

A final question is pending: professional training. This requires theoretical knowledge, but also practical training, consisting of a given number of supervised examinations. For example, the American Association of Clinical Endocrinologists recommends 100–125 examinations (70% diagnostic examinations and 30% ultrasound-guided FNAs).<sup>3</sup> It is therefore indispensable that our scientific community takes a position to clearly define the contents and accredit the centers where training may be received.

Ultrasound examination has a clear importance in the daily clinical practice of our specialty, determining our diagnostic and therapeutic decisions. Ultrasound is a tool that should become an extension of the physical examination, and clinicians should be trained to manage it efficiently. We cannot resign ourselves to condemning our patients to endless waiting lists and repeated visits. Neither can the public health system afford unnecessary expenses and poor efficiency. We therefore have the responsibility to continue our training and to train our residents in neck ultrasound to

enable them to be able ultimately to perform this examination alone and so to provide the best possible care for our patients.

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