

EDITORIAL

Ultrasonography in ENT practice

Mihai Dumitru, MD, PhD, Assistant Professor^{1,2}

¹Anatomy Department, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

²ENT Department, Bucharest University Emergency Hospital, Bucharest, Romania



Ultrasonography of head and neck masses is credited with sensitivity and specificity of 92.59% and 75.46%, respectively, a positive predictive value (PPV) of 48.54% and a negative predictive value (NPV) of 97.60%¹. Moreover, extension of the diagnosis accuracy is possible through fine-needle aspiration biopsy (FNAB), as shown in a recent meta-analysis, with a sensitivity of 0.882 (95% confidence interval [95% CI], 0.509-0.982) and a specificity of 0.995 (95% CI, 0.960-0.999) for salivary glands pathology². In thyroid pathology, ultrasound criteria such as hypoechogenicity, border irregularity, intranodular vascularity and microcalcification have a p-value lower than 0.05 for malignancy³. Furthermore, enlarged lymph nodes with two or more suspicious features had a PPV of 73.91%, NPV of 48.96%, sensitivity of 25.76% and specificity of 88.68% for metastasis from thyroid malignancy⁴. Recently, ultrasonography proved useful in real-time management of head and neck tumors during oncology treatment with sensitivity / specificity of 95.24% / 97.92% in case of recurrence⁵.

In 2013, during the PhD study, I entered the field of ultrasonography and ultrasound-guided procedures performed first hand by the ENT surgeon under the guidance of Professor Sarafoleanu Codrut, as PhD coordinator, and Professor Costache Adrian, head of the Ultrasound Teaching Center at "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania. At that moment, this field of activity was neglected in Romania and we had to return to basics starting with the ultrasound anatomy of the head and neck region and correlating it with ENT practice⁶. The next step was to apply general ultrasound competence

to the specifics of the head and neck pathology while shifting the learning curve from benign pathology to malignant tumors⁷. Sonography of the head and neck presents similar specificity and sensitivity to the contrast CT, the gold standard for imaging congenital masses⁸. There are various advantages of the head and neck sonography as the central imaging modality for managing tumors, such as: cheap, fast, lack of irradiation, serial exams with real time progression of the pathology, and the possibility of onsite FNAB of the mass⁹.

If a young ENT specialist tried to master head and neck ultrasonography, one should consider there are still some problems to surpass in Romania: the lack of a specifically designed competence course for head and neck sonography, the not-so-wide availability of ultrasound equipment and even the lack of pooled expertise in this field, as there are fewer than ten ENT specialists performing this procedure. One of the reasons is still the referral of patients to general imaging departments, thus jeopardizing the possibility of accumulating further experience in surgeon-performed head and neck ultrasound, and unfortunately in some cases increasing the time to diagnosis and reducing the patient compliance to treatment.

There are various fields of activity and research for extending the use of sonography in head and neck pathology, such as nasal, laryngeal and endocavitary pathologies during surgical imaging of the ENT pathology¹⁰. The Romanian Journal of Rhinology will be the host of future articles on these still experimental themes awaiting standardization and wide-scale use.

Nowadays, we focus on organizing head and neck ultrasound hands-on workshops for students



Figure 1 ENT ultrasound guided procedures workshop.



Figure 2 Hands-on workshop of head and neck sonography.

and residents during various national and international conferences (Figure 1, Figure 2), such as the 42nd Conventus Societas ORL Latina (2017 in Sinaia), The International Medical Students' Congress of Bucharest or Marisiensis at Tirgu Mures, in 2019. We hope to attract the new generations of students to the use of ultrasound in the head and neck pathology management in their future practice. In the end, I would like to thank Professor Sarafoleanu Codrut for the honour of me joining the Editorial Board of the Romanian Journal of Rhinology.

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