ISSN 2446-5321

Archives of Endocrinology and Metabolism

OFFICIAL JOURNAL OF THE BRAZILIAN SOCIETY OF ENDOCRINOLOGY AND METABOLISM

Vol. 61 • Supplement 02 – June 2017

SBEM
Sociedade Brasileira de Endocrinologia e Metabologia

56610 IMPACT OF SERUM TSH AND ANTI-THYROGLOBULIN ANTIBODY LEVELS ON LYMPH NODE FINE-NEEDLE ASPIRATION THYROGLOBULIN MEASUREMENTS IN DIFFERENTIATED THYROID CANCER PATIENTS

Marta Amaro da Silveira Duval[1], André Borsatto Zanella[1], Ana Patrícia Cristo[1], Carlo Sasso Faccin[1], Marcia Graudenz[1], Ana Luiza Maia[1]

[1] Universidade Federal do Rio Grande do Sul (UFRGS)

Introduction: Differentiated thyroid cancer (DTC) is the most common endocrine cancer, accounting for 90% of the thyroid gland malignancies. DTC prevalence has risen in the last decades and, although the good prognosis expected for this tumor, recurrence in cervical lymph nodes (LN) occurs in up to 15% of patients after initial therapy. The diagnosis of cervical LN metastases of DTC is often complex and measurement of thyroglobulin in the washout of fine needle aspiration (FNA-Tg) has been used as an additional tool to detect LN disease. Nevertheless, the best cutoffs and influence of potential confounders are still a matter of debate. **Objective:** To evaluate the accuracy of FNA-Tg measurement to detect DTC metastases, seeking to assess the best cutoff point for the method, as well as to evaluate potential confounders, such as level of serum thyrotropin (TSH) and antithyroglobulin antibodies (TgAb). **Methods:** One hundred and thirty-eight patients with DTC and suspicious cervical LN were included. Patients underwent ultrasound (US) FNA guided aspiration, for both cytological examination and FNA-Tg measurements. Final diagnoses were determine by histological examination or by clinical and US follow-up for at least 1 year. **Results:** Between October 2012 and September 2015, 138 consecutive patients with DTC and suspicious cervical LN, detected by palpation or cervical US, attending the Endocrine Division at our Institution were invited to participate in the study. Data from 119 subjects (74.8% female; 45.9 years) were available for analysis. The median value of FNA-Tg in patients with metastatic LN (n = 65) was 3263.0 ng/mL (838.55-12507.5), while patients without LN metastasis (n = 54) showed levels of 0.2 ng/mL (0.2-0.2). According to the ROC curve analysis, the best FNA-Tg cutoff value to predict metastasis was 4.41 ng/mL, with sensitivity of 98% and specificity 96%. There were no differences in the median of FNA-Tg measurements between those on (TSH 0.16 mUI/mL) or off levothyroxine (TSH 99.41 mUI/mL) therapy (47.94 *vs.* 581.15 ng/mL, respectively; P = 0.79). Of note, the values of FNA-Tg in patients with LN metastasis (n = 65) did not differ between patients with positive or negative TgAb (88.8 ng/mL *vs.* 3263.0 ng/mL, respectively; P=0.57). **Conclusion:** Taken together our results demonstrated that measurement of FNA-Tg is an excellent tool for evaluation of suspicious LN in patients with DTC, independently of TSH status and presence of TgAb.

56601