Effectiveness of fine needle aspiration biopsy (FNAB) with intraoperative assessment of thyroid nodules in a Regional Hospital of Petroleos Mexicanos


OBJECTIVE:
To know the effectiveness of FNAB with intraoperative assessment and the epidemiology of all patients with nodular thyroid disease performed at the Minatitlán Regional Hospital of PEMEX, their clinical outcome, and the reclassification with the current Bethesda thyroid cytology report system.

METHODS:
The analysis was performed retrospectively of samples obtained by FNAB performed on thyroid nodules between January 1, 2013 and January 1, 2019 at the Hospital Regional Minatitlán with and without intraoperative assessment, to test the effectiveness of the aspiration biopsy, we used the sensitivity, specificity, positive predictive value and negative predictive value test were used.

RESULTS:
A total of 274 aspiration biopsies were performed during the 6 years analyzed, with a total of 219 patients, 191 women (87%), 28 men (13%), with an average age of 54.6 years (16-93 y.o.).
From the total of the biopsies performed, they were reclassified 100% to the Bethesda system, resulting in the following categories: 112 (41%) Non-diagnostic/I, 139 (51%) Benign/II, 4 (1%) Follicular lesion/III, 12 (4%) Follicular Neoplasm/IV, 3 (1%) Suspicious for Malignancy/V and 4 (1%) Malignant/VI.

CONCLUSION:
There was a cyto-histopathological correlation of 100% in those patients diagnosed with malignancy, the sensitivity for the test was 88.88%, the specificity was 98.58%, the positive predictive value 80% and the negative predictive value was 99.28%. Effectiveness improved with intraoperative assessment by a cytopathologist at the time of puncture. It is concluded that the FNAB allows a timely reference of patients diagnosed in malignant categories to their attention and oncological treatment and constitutes a simple and minimally invasive technique for the diagnosis of nodular thyroid.

References:
Bethesda Classification and Cytohistological Correlation of Thyroid Nodules in Brazilian Thyroid Disease Center. Eur Thyroid J. 2018; April: 1-8.