Medullary Thyroid Carcinoma with Synchronous Papillary Neoplasm: Lymph Node Metastasis Diagnosed by Fine-Needle Aspiration Cytology

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ABSTRACT

Fine needle aspiration cytology (FNAC) is an essential method for characterizing cervical adenopathies, allowing the distinction between benign and malignant lesions. Medullary thyroid carcinoma is a rare neuroendocrine neoplasm derived from thyroid C cells, which may initially present as lymph node metastasis. This article describes the clinical case of a 62-year-old woman with supraclavicular adenomegaly, whose first FNAC was suggestive of epithelial neoplasia of unknown origin. Subsequently, a repeat FNAC was performed, which raised the hypothesis of metastasis from medullary thyroid carcinoma. Diagnostic confirmation was obtained by immunocytochemistry techniques (positive for TTF1 and calcitonin). Total thyroidectomy with neck dissection revealed medullary carcinoma in the right lobe, with vascular invasion, and papillary follicular microcarcinoma in the left lobe. This case highlights the role of cytology in the initial approach to lymphadenopathy, demonstrating the role of FNAC in obtaining samples with adequate morphological preservation, despite being a minimally invasive method. When combined with proper cytopreparation and supported by complementary techniques, it proves to be fundamental for an accurate cytopathological diagnosis and appropriate clinical management.

Key-words: Medullary thyroid carcinoma, Papillary thyroid carcinoma, Aspiration cytology, Lymph node, Inaugural Metastasis