Endoscopic Ultrasound-Guided Fine Needle Aspiration of a PET/CT-Positive Small Hilar Lymph Node for the Diagnosis of Metastatic Merkel Cell Carcinoma

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An asymptomatic 69 year-old man with a history of previously resected Merkel cell carcinoma (MCC) of the eyelid two years before and a renal cell carcinoma successfully treated with a right nephrectomy five years before, was referred for further evaluation of enlarged lymph nodes in the hepatic hilum, detected on 18F-FDG PET/CT (Fig. 1) and confirmed on a subsequent MRI. Endoscopic ultrasound (EUS) evidenced two nodes in the hepatic hilum. The largest - 19 mm - was not approachable for biopsy due to the presence of interposed blood vessels, while the smaller – 9 mm - was suitable for an EUS-guided fine needle aspiration (EUS-FNA), which was performed with a 25-gauge fenestrated needle (Fig. 2). The cytological examination revealed numerous clusters of cohesive atypical cells with scant cytoplasm and hyperchromatic nuclei (Fig. 3, Pap 40x). Considering previous history of MCC, a diagnosis of metastatic MCC was made. The patient was treated with radiotherapy and no evidence of disease progression was revealed in an 18-months follow-up evaluation.

Merkel cell carcinoma, also called "primary cutaneous neuroendocrine carcinoma", is a rare and aggressive skin tumor characterized by rapid progression, frequent local recurrence, and a high incidence of lymph nodal and distant metastases [1]. Primary treatment of MCC consists of surgical excision with wide margins, with or without adjuvant radiotherapy [1-2]. It usually responds to chemotherapy, but responses are short in duration and most patients subsequently develop metastasis. Immunotherapy has shown a major advancement in the treatment of advanced MCC [3].

Although there are no comparative studies showing that the needle size was a significant predictive factor to improve the diagnostic accuracy of EUS-FNA for abdominal lymph nodes [4], recent guidelines recommend 22G or 25G needles for routine use in these patients [5].

In our patient, EUS-FNA of a small hilar lymph node was able to diagnose a still limited metastatic disease, thus allowing prompt initiation of treatment.

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