Metastatic melanoma of the lung - an occasional finding: a case study

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Clinical presentation:

The 69-year-old man lost consciousness on the street. He was hospitalized at one of the Moscow clinics, where he was diagnosed with: acinar prostate cancer (histologically verified), signet ring cell carcinoma of the stomach (also histologically verified), peripheral solitary pulmonary nodule (1.5 cm in diameter) and multiple brain metastases on computed tomography. The FNAB of the lung was delivered to the N.N. Blokhin Russian Cancer Research Center.

Cytological findings:

Cytologic smears showed small amount of polymorphic epithelioid cells and spindle cells with cytoplasmic dustlike stippling, binucleated cells also occurred. It was hard to differentiate the tumor between melanoma and adenocarcinoma. Immunocytochemistry (ICC) was carried out: tumor cells were negative for CK7, CK20, PSA, TTF-1, Cdx2 and positive for HMB45 and S100.

Discussion:

The patient underwent repeat esophagogastroduodenoscopy (EGD), and biopsy touch imprint cytology showed, that the gastric tumor had the same morphological features as the lung tumor. The diagnosis of pigmented epithelioid melanoma was confirmed both by ICC and IHC (immunohistochemistry) on biopsy material. Further full examination of the skin revealed the pigmented neoplasm in the right subscapular region. The final diagnosis was: multiple primary malignant neoplasms - synchronous acinar prostate cancer and melanoma of the right subscapular region with gastric, lung and brain metastases. This case showed the essential role of ancillary techniques in cytopathologist daily practice.

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