Dermatology Practical & Conceptual

Merkel Cell Carcinoma: Mind the Genital Metastatic Sites!

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To the Editor,

Merkel cell carcinoma (MCC) is a rare neuroendocrine tumor of the skin, presenting mostly in sun-exposed site of Caucasian elderly patients. The median age is 75 years, with less than 5% of patients younger than 50 years. MCC is associated with immunosuppression and its incidence is increasing worldwide. Merkel cell polyomavirus (MCPyV), demonstrated either immunohistochemically or by PCR in a subset of MCC, and the UV damage are probably interrelated etiopathogenetic agents. Even if, in the past, it was considered almost indolent, now it is classified as a high-grade malignancy, especially because it often disseminates distantly. After lymph nodes, the most common sites of distant metastases are skin/soft tissue (25%), liver (23%), bone (21%), pancreas (8%), lung (7%) and brain (5%) [1]. As a result, during staging procedures, the aforementioned body sites must be evaluated carefully as regional lymph nodes. However, rare metastatic sites may occur, and they can be overlooked; genitourinary tract and specifically testes can represent a neglected metastatic localization.

A man, aged 50 years, was diagnosed with a skin MCC of left knee. The lesion was located in the deep dermis and measured 1 cm in the greatest axis. As expected, MCC resulted immunohistochemically positive with chromogranin and keratin 20, but it was also immunoreactive with MCPyV antibody. He underwent a tumor excision, followed by a negative sentinel lymph node procedure and a Computed Tomography (CT) scan, which ruled out any metastases. Nine months later, on the Positron Emission Tomography–Computed Tomography scan with 2-deoxy-2-[18F] fluoro-D-glucose (2-[18F]FDG PET/CT), performed for routine follow-up, a 4-centimeter solid mass with a high uptake (SUVmax 10), was found in the right testis (Figure 1). A right radical orchiectomy was performed, with the suspicion of a germ cell tumor. At histology, the mass was composed

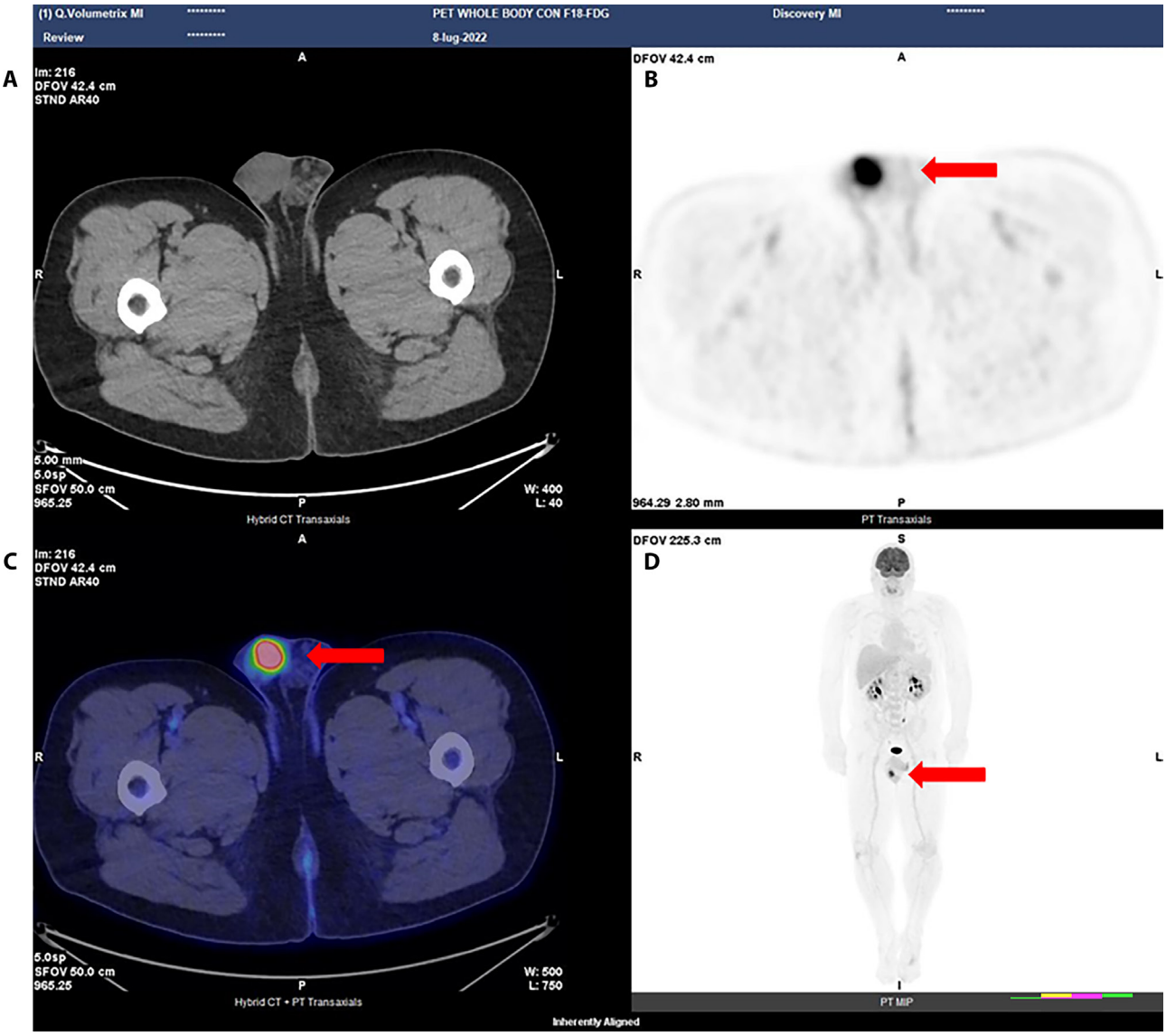

Figure 1. (A) [18F]F-FDG PET/CT transaxial images with low-dose CT. (B) PET. (C) Image fused PET/CT. (D) Maximum intensity projection (MIP). The red arrows in images B, C and D, shows a focal uptake (SUVmax 10) in the right testis.

of neoplastic epithelial cells with fine granular chromatin and nuclear molding (Figure 2A), immunohistochemically positive with keratin 20 (Figure 2B) and chromogranin. Anti MCPyV antibody was positive as well (Figure 2C). Overall, morphological findings were suggestive of a metastasis from a MCC. A subsequent total body CT scan excluded any further localization.

Testis is a very rare metastatic site from MCC [2-6]. In a recent review [6], only eleven cases of testicular MCC metastases are reported in literature. At variance with the present cases, most patients presented with already advanced or locally advanced stage at diagnosis. According to the authors, single testis metastasis does not necessarily mean a systemic disease as the patients without other extra-testicular localization experimented a survival longer than 1 year [6].

In MCC, the main prognostic factors are regional and distant metastases. If localized, MCC carries the best prognosis (50.6% 5-year overall survival [OS] rate). In regional and distant disease, 5-year OS was estimated to be 35.4% and 13.5%, respectively [1]. The surveillance strategies during follow up are therefore crucial. As examination of the genitals is not usually included in routine follow-up of MCC, dermatologists should at least advice patients on self-examination.

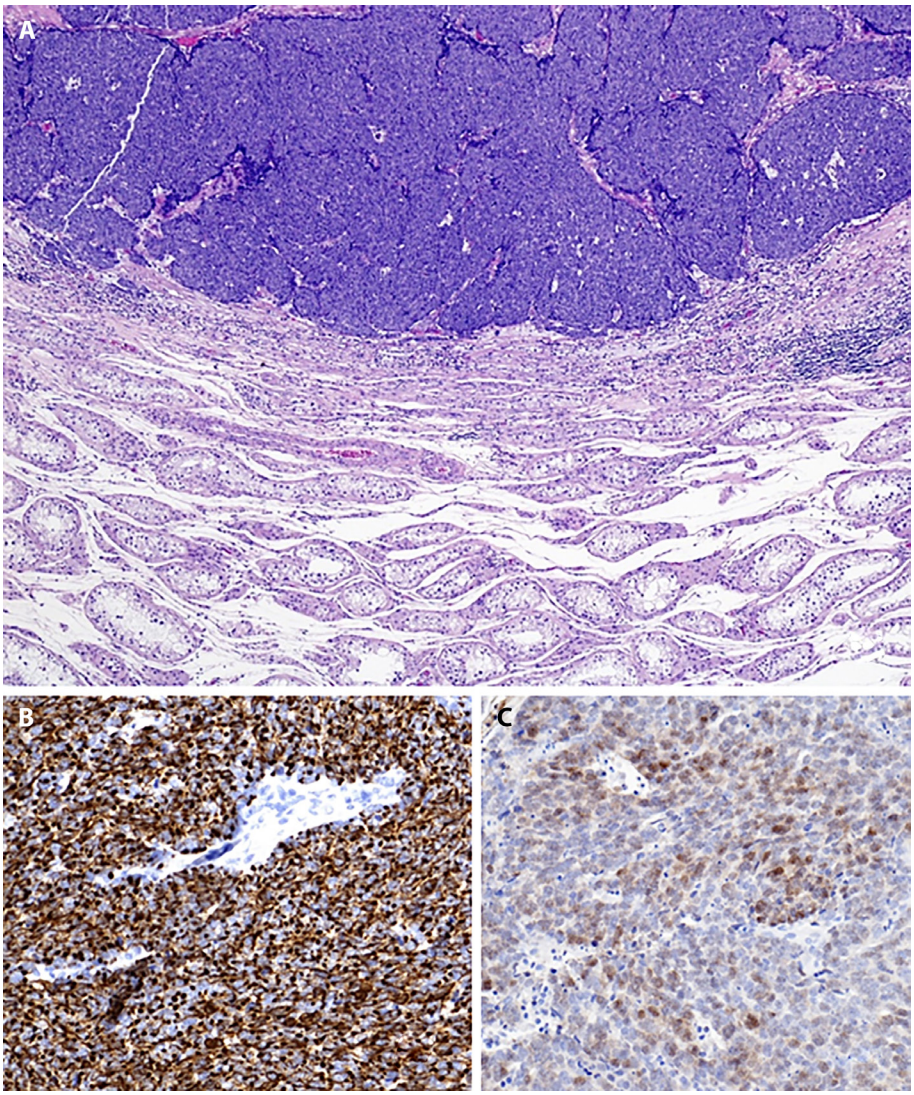

Figure 2. (A) MCC growing through the seminiferous tubules of the testicular parenchyma. (B) MCC immunohistochemical positivity with cytokeratin 20. (C) MCPyV is detected in neoplastic cells.

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