## **CLINICAL SCIENCE LETTERS**

# Merkel Cell Carcinoma of the Breast

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To the Editor:

Merkel cell carcinoma (MCC) is a rare malignant skin tumor of neuroendocrine origin first described by Toker in 1972. Prognosis is poor and progression rapid. It usually presents as a rapidly-growing erythematous nodular lesion in individuals aged over 65 years. Atypical forms of presentation have also been described, such as minimal ulceration in the nasal tip, subcutaneous nodules in the inguinal region, granulation tissue on a toe, and an extensive wine-colored plaque in the frontal region. We could find only 4 cases of primary MCC of the breast reported in the literature. He describe a new case of MCC of the breast in a woman attended recently in our department.

The patient was 77 years old and had a history of hypertension and type 2 diabetes mellitus. She was referred to the dermatology department for asymptomatic lesions in the left mammary region that had first appeared 15 days earlier and that were growing rapidly. Examination revealed diffuse induration of the right breast on which multiple, violaceous, dome-shaped nodules could be seen (Figure 1). In view of the suspected diagnosis of breast cancer en cuirasse, a biopsy was taken of 1 of the lesions. The results showed tumoral infiltration of the dermis and subcutaneous cellular tissue by small round monomorphic cells with scant cytoplasm, a round nucleus, and small nucleoli. The cells were arranged in large nests, masses, and strands. The mitotic index was high. The formation of glandular lumens was not observed. The immunohistochemical study was positive for cytokeratin 20, neuronal specific enolase (NSE), and chromogranin A. Immunoreactivity for protein S100, leukocyte common antigen, thyroid transcription factor-1 (TTF-1), and estrogen and progesterone receptors was not observed. No pathological findings were reported on the plain chest X-ray. The patient attended 2 weeks later for follow-up. Rapid growth of the breast tumor could be observed, with necrotic and ulcerated areas on the surface, enlarged lymph nodes in the right axilla, and lymphedema of the right arm associated with disseminated cutaneous nodules (Figure 2). On the basis of the histopathological and immunohistochemical studies, she was diagnosed with MCC and referred to the oncology department.

MCC is an uncommon tumor with an annual incidence of approximately 0.4 cases per  $100\,000$  inhabitants. It is



Figure 1. Diffuse induration of the right breast with multiple violet dome-shaped nodules on the surface.



Figure 2. Two weeks later, tumor with necrotic and ulcerated areas on the right breast with lymphedema and disseminated violaceous nodules on the right arm.

most common on sun-exposed areas such as the head (mainly the eyelids and cheeks) and neck, followed by the limbs, buttocks, and trunk. Cases have also been described in the mucosas, including the bottom lip, oral and genital mucosas, and the anal region. Lesions localized to the breast are even less frequent; we have found several cases of metastasis of MCC to that site, but only 4 primary cases, 1-6 1 of which was in a man.

In this case, the differential histopathological diagnosis should be made with:

- 1. Skin metastases of internal neuroendocrine tumors such as small-cell lung cancer. In our case, the positive assay for cytokeratin 20 and the negative one for TTF-1 ruled out this tumor, an exclusion that was also supported by the lack of pathological findings on the plain chest X-ray.<sup>7</sup>
- 2. Primary neuroendocrine adenocarcinoma of the breast. This term is reserved for uncommon breast tumors in which more than half the cells express neuroendocrine markers (NSE, chromogranin A, or synaptophysin) and which present mainly in elderly women. This would perhaps be the main tumor to rule out here given that the site of the tumor in our patient was the breast, particularly as some reports indicate that superficial biopsies have led to initial misdiagnosis.<sup>9,10</sup>

#### Conflicts of Interest

The authors declare no conflicts of interest.

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# **Molluscum Contagiosum Over a Tattoo**

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To the Editor:

In our daily practice, consultations for tattoos and associated dermatological complications are increasingly common. This ancient practice is currently becoming more widespread among the general population, and there are an increasing number of reports of dermatological processes associated with tattoos in the literature; these complications include contact dermatitis, local and systemic infections, transmission of hepatitis C and B virus (HCV and HCB), human immunodeficiency virus (HIV), syphilis, warts, and cutaneous tuberculosis. 1,2

We report here our experience with this type of problem. A 36-year-old man consulted for several umbilicated papules measuring 1 to 3 mm in diameter on a black-ink tattoo on the right arm (Figures 1 and 2). Since he first

had the tattoo several years earlier, no other associated problems had occurred. In view of progressive loss of pigment, however, he decided on a recoloring procedure and lesions appeared a few weeks later. These were completely asymptomatic and extended progressively but remained confined to the tattooed skin. The patient did not have any drug allergies or report any medical or surgical history of interest. A biopsy was taken of one of the lesions, and large intracytoplasmatic inclusion bodies or "molluscum bodies" were observed inside the epidermal cells while a deposit of blackish pigment was apparent in the dermis. The laboratory tests included serology for HIV, HCV, and HBV, and were normal. Once diagnosis of molluscum contagiosum was confirmed, treatment included curettage of the lesions. No recurrence was reported.