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Clinical & Experimental Dermatology and Therapies

Mseddi M, et al. Clin Exp Dermatol Ther: CEDT-125.
DOI: 10.29011/2575-8268/100025

Case Report

Case of Diagnostic Heterogeneous Pigmented Lesion of the Nipple

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Citation: Mseddi M, Miladi S, Sellami Kh, Frikha F, Bahloul E, et al. (2017) Case of Diagnostic Heterogeneous Pigmented Lesion of the Nipple. Clin Exp Dermatol Ther: CEDT-125. DOI: 10.29011/2575-8268/100025

Received Date: 30 May, 2017; **Accepted Date:** 16 June, 2017; **Published Date:** 23 June, 2017

Observation

A 54-year-old woman with no specific pathological history consulted for a pigmented lesion of the left breast progressively evolving for 5 years.

On examination, there was a pigmented, heterogeneous, poorly limited and discretely keratosic lesion of the left aeolian region (Figure 1 and 2). The nipple was painless, not invaginated, not ulcerated and without flow during pinching.

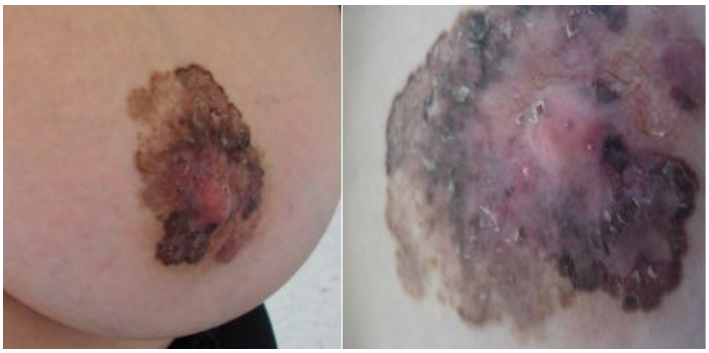

Figure 1 and 2: Poorly limited and discretely keratosic lesion of the left aeolian region.

Breast palpation revealed no underlying mass. Examination of the contralateral breast was normal. The ganglionic areas were free. A cutaneous biopsy was performed (Figure 3 and 4); Immunohistochemistry (Figure 5).

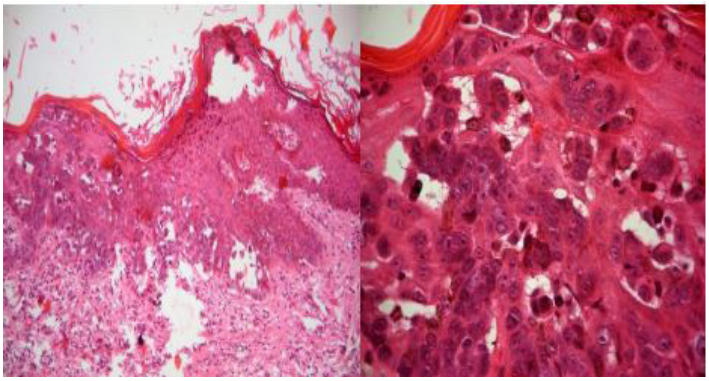

Figure 3 and 4: A cutaneous biopsy.

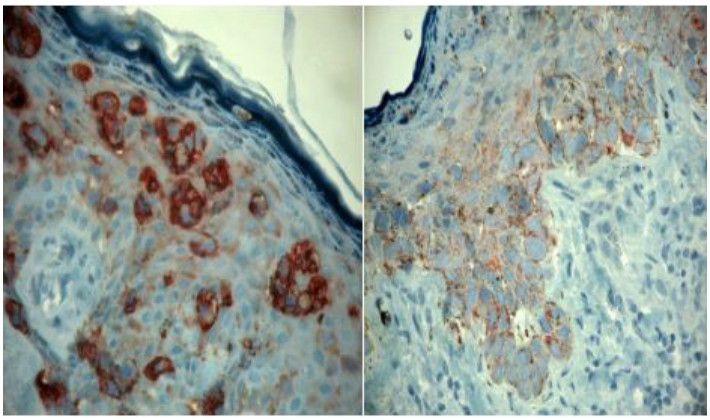

Figure 5: Immunohistochemistry.

What is your diagnosis?

The anatomopathological study showed intraepidermal proliferation of large cells with abundant cytoplasm and nucleolus nuclei. These cells sat in the basal layer of the epidermis and sometimes ascended into the granular layer, isolated or grouped into small clusters. Anisocaryosis was noted with some mitoses. These cells were associated with a large number of dendritic melanocytes, rich in melanin pigment, sitting on their contact. The dermis was the site of an inflammatory lympho-plasmocytic and histiocytic infiltrate without foci of tumor microinvasions. Tumor cells were negative for PS100, HMB 45, Melan A and cytokeratin 7, positive for Epithelial Membrane Antigen (EMA), pan cytokeratin (KL1, AE1 / AE3), and estrogen, The CA 15-3 antigen. The diagnosis of Paget's disease in its pigmented form was retained. Echo mammography performed in search of sub-jascent cancer was normal. The mammary MRI revealed a thickening of the skin area of the areolar region, without anomalies of the mammary parenchyma. The proposed tumectomy was refused by the patient, who was lost to follow-up.

Discussion

Classically, Paget's disease occurs clinically in the form of an eczematiform, erythematous-crusted, erosive or fissurar plaque, often pruriginous, spreading gradually in a centrifugal manner to a net limit, producing a pink plaque with a squamous or oozing surface touching the nipple and Overflowing over the areolar region [1,2]. The pigmented aspect is an infrequent clinical variant, first described by Ho et al in 1990. A few cases of male pigmented breast Paget's disease have been reported in the literature [3-5]. Clinically, it can easily be confused with a pigmented melanoma or metastasis of a mammary adenocarcinoma [2,4], thus justifying the demand for complementary explorations.

The lesion is often asymptomatic, discretely pruritic with a very prolonged evolution before the diagnosis is made. On clinical examination, often there is no underlying palpable breast mass as in our case. In a series of 70 patients with mammary Paget's disease, Kothari et al found palpable mammary mass only in one-third of cases, whereas the histological study showed galactophoric adenocarcinoma in 98.6% of cases [6], whose prognosis depends on the stage of the underlying tumor [4,7].

The diagnosis of Paget's disease is confirmed by the pathological examination showing in the epidermis large cells with clear cytoplasm and abundant nucleus nucleus, dispersed in the epidermis sometimes grouped in clusters at the level of the basal layer. The cytoplasm of the paget cells is stained in 30% of cases by Periodic Acid Schiff (PAS) [1]. Nevertheless, this pathological aspect is non-specific, which can discuss the diagnosis of melanoma or mammary Bowen's disease [8,9]. An immunohistochemical study is then necessary, the cells express the low molecular weight glandular cytokeratins in (90%), including Cytokeratin 7 (CK7), however in very rare cases, this marker is negative [1,7,8] As in our observation, requiring the use of additional epithelial markers, including pancytokeratins (KL1, AE1 / AE3), epithelial membrane antigen and carcinoembryonic antigen [10-12]. The PS100 protein may be positive in rare cases but never for other melanocytic markers such as HMB45 and Melan A. The differential histological diagnosis is mainly with SSM type melanoma due to the morphological analogy of tumor cells But Paget's disease remains intraepidermal whereas the SSM of the same extension still infiltrate the sub-jascent dermis [11,12].

The physio pathological mechanism of hyperpigmentation remains controversial, whether it is a local production by the cancer cells of factors favoring the chemotaxis of the melanocytes, or that the tumor cells are themselves rich in melanin pigment. In this latter situation, it is either a transfer of melanin from the melanocytes to the tumor cells or a specific activity of these cells to phagocytate the melanin pigments [1,4,13].

Conclusion

Our observation is peculiar not only to the pigmented aspect of the tumor but also to the absence of tumor expression of CK7. It illustrates the difficulties of histological diagnosis, where a whole panel of immunohistochemical markers remains essential to distinguish it from a melanoma of the nipple.

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