Dermatology Practical & Conceptual

Acquired Bilateral Nevoid Telangiectasia Induced by Tamoxifen

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Introduction

Unilateral nevoid telangiectasia (UNT) is a superficial telangiectasia of the upper body characterized by showing a unilateral dermatomal distribution, typically affecting dermatomes from C3 to T3 [1]. Although the exact cause is unknown, the association with hyperestrogenic states has been described [2]. Bilateral nevoid telangiectasia (BNT) is a rare variant of UNT affecting both sides of the body. We present a case of BNT in relation with tamoxifen treatment.

Case Presentation

A 41-year-old female attended our dermatology department due to the appearance of asymptomatic cutaneous lesions on the upper trunk and arms. She had a history of ductal cancer of the right breast stage IA with positivity for estrogen and progesterone receptors, treated with surgery, radiotherapy and tamoxifen. She did not have any other drug history. The cutaneous lesions had appeared several weeks after finishing radiotherapy and starting tamoxifen treatment. Physical examination showed symmetric purpuric linear macules on the inner arms, chest and upper back (Figure 1). The macules had a dermatomal distribution following the T1 dermatome (Figure 2). She was interrogated for extracutaneous manifestations such as digestive bleeding or epistaxis, without reporting any systemic symptoms. A skin biopsy showed dilated blood vessels in the upper dermis with mild perivascular inflammation and normal number of mastocyte cells. Immunohistochemistry showed positivity to estrogen receptors in fibroblastic cells. Blood tests including biochemistry, blood count, coagulation study, estrogen and progesterone levels and viral hepatitis serology were normal or negative. Stool blood test was negative. She was diagnosed with BNT secondary to tamoxifen.

Conclusions

BNT, although bilateral in its presentation, is analogous to UNT in that it follows the characteristic dermatomal

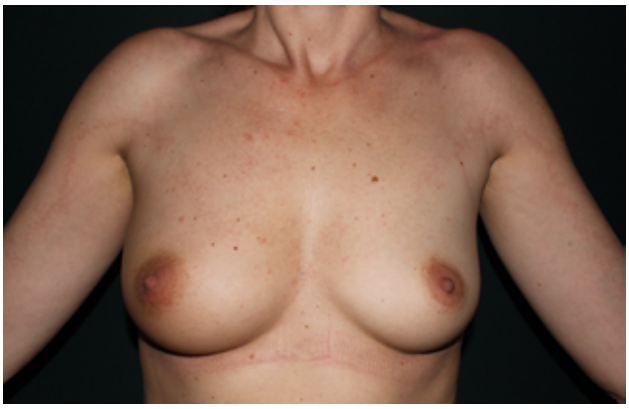

Figure 1. Clinical image of bilateral nevoid telangiectasia. Symmetric purpuric linear macules on the arms and chest following the T1 dermatome.

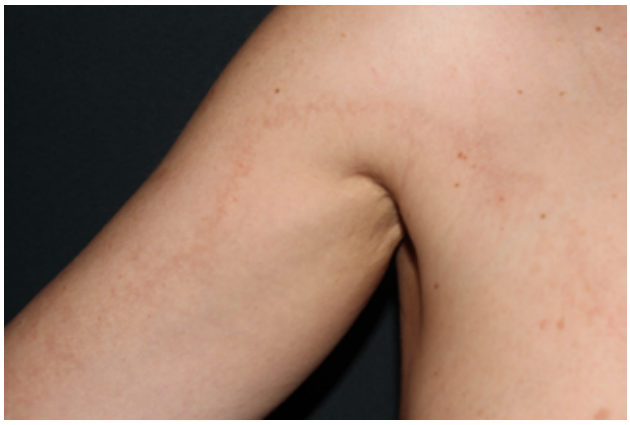

Figure 2. Clinical image of bilateral nevoid telangiectasia. Linear purpuric – brownish macules following the T1 dermatome.

distribution of the telangiectasias. However, this variant seems to be less frequent. Over a hundred cases of UNT have been described in the literature, and only twenty-four cases of BNT [3]. Although both entities are similar in their presentation, some epidemiological differences have been described between the two variants. BNT is more frequent in male patients whereas UNT occurs predominantly in women. Patients with BNT are usually older than those with UNT, with a later onset of presentation, and higher association with underlying diseases such as liver diseases, diabetes and smoking [4].

The association of UNT with hyperestrogenic states has been proposed, owing to the high prevalence in patients during puberty and pregnancy [5]. Tamoxifen is a selective estrogen receptor modulator used in breast cancer with positivity for hormonal receptors. This therapy has an antagonist effect on breast tissue, but an agonist effect on bone, liver, skin and endometrium. Association between UNT and other drugs, such as chemotherapy agents, has also been proposed [6].

We hypothesize that tamoxifen led to an increase of estrogen receptors on the dermatomal skin of our patient, which may have been the cause for the presentation of BNT in this case. This is the first case reported, to our knowledge, of nevoid telangiectasia (UNT or BNT) in relation with tamoxifen. This contributes to the hypothesis that hyperestrogenic states may be important not only for the pathogenesis of UNT but also for BNT. However, more studies directed to explain the underlying mechanisms causing UNT and BNT are needed to validate our observations.

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