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Bleomycin induced flagellate dermatitis: A clinical image

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Abstract

Bleomycin is a cytostatic antibiotic used in chemotherapy for treating hodgkins lymphoma, testicular and ovarian germ cell tumour cancer. This case is a 18 year old female presenting with bleomycin induced flagellate dermatitis. Characteristics, clinical evaluation and management of bleomycin induced flagellate dermatitis were discussed. Flagellate dermatitis is rare adverse drug reaction that can be self limiting after discontinuation of bleomycin.

Case description

This case is about a 18 year old female who was diagnosed with germ cell tumor of ovary and is currently taking BEP chemotherapy regimen includes bleomycin, etoposide and cisplatin. After the first dose of bleomycin, she presented with hyperpigmented lesions on trunk, back and neck. On examination these lesions are hyperpigmented with a distinct linear aspect on trunk, back and neck were observed. The diagnosis was made by clinical manifestation as flagellate dermatitis. Symptomatic treatment was given with antihistamines, Tablet Levocetrizine-5 mg- H/S and Bleomycin therapy was continued.

Discussion

Bleomycin is a cytostatic antibiotic used in chemotherapy for treating cancer. It is effective in the management of hodgkins lymphoma, testicular and ovarian germ cell tumour [1].

Cutaneous and pulmonary adverse effects are the most commonly associated adverse effects seen with Bleomycin. Bleomycin hydrolase, an enzyme that metabolizes bleomycin, is not found in tissues of skin and lung thereby resulting in the accumulation of bleomycin and making them more susceptible for adverse drug reactions [2]. Flagellate dermatitis, a characteristic cutaneous finding which is often associated with bleomycin, is characterized by features like inflammatory nodules, warty hyperkeratotic plaques with a specific linear arrangement. These nodules or plaques with parallel linear arrangement or curvilinear arrangement often simulates "whiplashes" and therefore it is also known as whiplash dermatitis [3].

In the acute phase of presentation, flagellate dermatitis and fixed drug eruptions share similar histopathological findings such as melanin incontinence, scattered dyskeratotic keratinocytes and vacuolisation in the basal layer of the epidermis [4]. However, during the later stages cutaneous eruptions which are merely post inflammatory changes can be predominantly seen in Flagellate dermatitis [5].

The diagnosis of Flagellate dermatitis will be done by clinical examination of cutaneous features. Flagellate dermatitis triggered by bleomycin is a dose-dependent reaction that often develops at cumulative doses exceeding 100 IU-200 IU. Contrary to this, some patients experience cutaneous reactions following low doses of 10-15 IU [6-8].

No dose adjustments or additional treatment is necessary for the management of bleomycin induced flagellate dermatitis

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as it is a self limiting condition and lesions usually resolve after the discontinuation of bleomycin. In the case of severe lesions symptomatic management with antihistamines and/or corticosteroids (topical or oral) should be considered to reduce the ongoing skin trauma and bleomycin therapy may be discontinued. Lesions may recur and spread if bleomycin is reintroduced [9-11].

Figure 1: Linear hyper pigmented lesions of Flagellate dermatitis on back

Figure 2: Detailed hyperpigmented patches on right shoulder

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Consent for publication: We obtain informed consent from the patient.

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