



# Specific Adverse Effect of Bleomycin: Erythema Flagellate Type Toxidermy

## Rasso A\*, Benkirane S, Ziani J, Elloudi S, Douhi Z, BayBay H and Mernissi FZ

Department of Dermatology, University of Hospital Hassan II, Morocco

**\*Corresponding author:** Asmae Rasso, Departement of Dermatology, CHU Hassan II, Fez, Morocco, Tel: 212672314910; Email: rassoasmae@gmail.com

Received Date: January 28, 2020; Published Date: February 17, 2020

#### Abstract

52-year-old patient with pressing erythem flagellate on the trunk one week after taking Bleomycin. This toxidermia is rare and often ignored by doctors.

Keywords: Erythema Flagellate; Bleomycin; Toxidermy

**Abbreviations:** BEP: Bleomycin Etoposide Cisplatin; DNA: Deoxyribonucleic Acid.

### Introduction

A 52-year-old woman, followed in oncology for endometrial choriocarcinoma with pulmonary metastasis treated by a

BEP poly-chemotherapy (Bleomycin, Etoposide, Cisplatin). She had presented apruritic erythematous rash on her back after 1 week of the first treatment. Clinical examination showed hyper-pigmented linear flagellant macules on the abdomen and back with fine scales on top (Figure 1). The diagnosis of erythema flagellata secondary to bleomycin was retained, and topical corticosteroid therapy was used with improvement.



**Figure 1:** Erythema flagellate secondary to Bleomycin in the abdomen and back.

Erythema flagellate is a linear pigmentation, first described by Moulin [1]. It is a specific reaction to treatment with bleomycin [2], which is an anti-tumour antibiotic. At low concentrations, it has a cytostatic effect by inhibiting mitosis; at high concentrations, it blocks the incorporation of thymidine into DNA. In this way, the drug stops the S phase of the cell cycle and causes DNA cleavage [3]. It is indicated in the treatment of various cancers: squamous cell carcinomas of the skin, malignant lymphomas, germ cell tumours. More incidentally, it is used as a topical treatment for keloid scars and plantar warts [4]. It may be responsible for variable side effects, in particular skin and lung toxicity, explained by the absence of hydrolase in these two tissues, which is capable of inactivating bleomycin, thus leading to varying degrees of toxicity.

#### References

- 1. Moulin MMJ, Fiere B, Beyvin A (1970) Cutaneous pigmentation caused by bleomycin. Bull Soc Fr Dermatol Syphiligr 77(2): 293-296.
- 2. Mowad CM, Nguyen TV, Elenitsas R, Leyden JJ (1994) Bleomycin-induced flagellate dermatitis: a clinical and histopathological review. Br J Dermatol 131(5): 700-702.
- 3. Burger R M, Peisach J, Horwitz S B (1981) Activated bleomycin: A transient complex of drug, iron, and oxygen that degrades DNA. J Biol Chem 256(22): 11636-11644.
- 4. Yamamoto T (2006) Bleomycin and the skin. Br J Dermatol 155(5): 869-875.