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(CASE REPORT)

A case report about a Sclerodermiform syndrome induced by anthracyclines

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Abstract

We report the case of a 43-year-old woman with non-metastatic breast adenocarcinoma, treated with 4 courses of antracyclines and 4 courses of taxanes. After the 3rd course of antracyclines, admitted via peripheral vein at the level of the crease of the right elbow, she presented with painful dermo-hypodermitis over the right antero-lateral aspect of the right elbow, non-febrile, clinically resembling to an erysipelas.

Keywords: Skin; Toxicity; Chemotherapy; Pseudoscleroderma; Anthracycline

1. Introduction

The skin represents one of the main target organs for toxicity associated with chemotherapy. A drug induced scleroderma-like lesion is a condition in which the administration of a drug induces sclerotic skin lesions similar to systemic sclerosis or morphea.

2. Case report

We report the case of a 43-year-old woman suffering from non-metastatic breast adenocarcinoma, treated with 4 courses of antracyclines, followed by 4 courses of taxanes. After the 3rd course of antracyclines, administered by peripheral vein at the level of the crease of the right elbow, she presented painful dermohypodermitis on the right anterior and lateral aspect of the right elbow, non-febrile, clinically suggestive of erysipelas. These were edematous, indurated, purplish, erythematous plaques, painful, associated with functional impotence. From the 4th session, the venous route administration of chemotherapy was replaced by an implantable chamber and local evolution was slowly favorable under topical corticosteroid with persistence of sclerotic edema. A skin biopsy was carried out and histology revealed an atrophic epidermis, topped with orthokeratotic keratin, the dermis medium contains thickened collagen fibers organized parallel to the epidermis, with the presence of an inflammatory infiltrate of the superficial dermis consisting of lymphocytes and organizing plasma cells perivascular.

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Figure 1 Clinical appearance of skin damage

3. Discussion

The clinical manifestations of scleroderma-type lesions of drug origin can be divided into two types: scleroderma-type lesions and morphea-type plaques. A wide variety of medications can cause drug-induced scleroderma-like lesions. The bleomycin, L-tryptophan, vinyl chloride and phytonadione (vitamin K 1) have been reported, but in recent years, cases due to chemotherapeutic agents, such as taxanes, gemcitabine and tegafur-uracil, and immune checkpoint inhibitors have been reported [1]. Drug-induced pseudoscleroderma is clinically and histopathologically similar to systemic sclerosis. It manifests itself by heterogeneous, swollen and sclerotic areas of the skin which become gradually harden. In some cases, the presentation may resemble diseases such as a localized myxedema or eosinophilic fasciitis. The original pseudoscleroderma lesions drug mainly affects the limbs and often appears first on the bottom of the legs and feet. In rare cases, they also occur on the trunk [2, 1]. Pseudoscleroderma, induced by chemotherapy can occur several weeks or even months after treatment [3- 4]. The mechanism of appearance of lesions in drug-induced pseudoscleroderma remains unclear. The influence of the cytokines TGF-β and PDGF on the stimulation of fibroblasts is considered [1- 3]. The chemotherapy mainly affects rapidly dividing cells such as cancer cells, but also normal cells of the skin, bone marrow, gastrointestinal tract and cells reproductive [5]. The prognosis of drug-induced pseudoscleroderma is uncertain. Some changes disappear spontaneously after the disappearance of the causative agent. Others however persist or worsen, and sometimes cause dysfunction in the patient's daily life by limiting mobility caused by hardening of the skin [3, 6, 7].

4. Conclusion

This adverse skin effect is not recognized, it which delays the diagnosis. It is often confused initially with erysipelas, despite the absence of fever. We believe that this toxicity cutaneous must be recognized because of its seriousness potential.

Compliance with ethical standards

Disclosure of conflict of interest

All authors have declared that no financial support was received from any organization for the submitted work.

Statement of informed consent

Consent was obtained or waived by all participants in this study.

Financial relationships

All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work.

Other relationships

All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

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