

Photo-Onycholysis: A Particular Chemotherapy-Induced Complication

K. Issoual*, A. Alaoui, k. Achehboune, S. Gallouj, S. Elloudi, H. Baybay, F.Z. Mernissi

Department of Cardiology, Servergazi State Hospital, Denizli, Turkey

*Corresponding Author: K. Issoual, Departement of Dermatology, CHU Hassan II FEZ Morocco.

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Introduction

Onycholysis or photo-onycholysis is a partial or total separation of the nail from the nail-bed secondary to chemotherapy, either alone or associated to ultraviolet phototherapy. It's not a common side effect of anticancer therapy, even rarer with Paclitaxel. We report here one case.

Observation

A 59-year-old woman patient, with invasive ductal carcinoma on the left breast with bone metastases, diagnosed in 2014, and treated by several chemotherapy protocols: 3 cycles of FEC, it's a combination of 5 fluorouracil, Epirubicin and cyclophosphamide; stopped in 2014. After that, and from 2014 to 2016, she received 6 cycles of docetaxel. Then she was under capecitabine for 4 months before treating her by a Pacli weekly protocol (Paclitaxel) since 08/2016 till this day.

At our consultation, the patient had a diffusé pigmentation of all the nails of both hands and feet since 2015, followed by inflammation and then detachment of the nails and intense pain, with the result of nauseating yellowish liquid from the unguéal table 4 months ago (10 weeks after the administration of Paclitaxel). On clinical examination, diffuse pigmentation of the nails of the hands and feet, with total onycholysis interesting only the fingernails of the hands, the pressure being very painful welding a thick yellowish liquid nauseating from the unguéal tablet. Our diagnosis was that of phototoxic onycholysis, and considering the different delays we before related this effect to Paclitaxel.

Discussion

Photo-onycholysis is a particular case of phototoxicity. It's a rare side effect, mostly encountered in patients treated with taxanes particularly Docetaxel (30-40%) and rarely described with the use of Paclitaxel. Nail modifications, such as pigmentation or onycholysis were found in only 2% of patients treated with Paclitaxel.

Nail damage during this treatment is summarized as onycholysis with subungual hematoma by photosensitization. The nail tablet acts as a magnifying glass concentrating ultraviolet rays on the nail bed. This results in very painful nail detachment and finally subungual aseptic abscesses. This complication generally develops between 10 and 12 weeks from the start of treatment [3]. In our case, the photo-onycholysis associated with Paclitaxel was chosen because of the delay. The toenails did not show onycholysis, only hyperpigmentation, which is in favor of phototoxicity. As for hyperpigmentation, it is classic during chemotherapy treatment, in our case, several agents used in the therapeutic protocol may be involved in our patient: Epidebicin, Cyclophosphamide, 5FU, Docétaxel as well as Paclitaxel, these last 4 molecules are responsible for photosensitization [1].

Several preventive measures can be implemented to diminish this effect; propose Opaque Nail Polish, rich in silicon during and up to 3-6 months after the end of chemotherapy, peri-ungual hydration, the wearing of refrigerated gloves during the administration of chemotherapy as well as baths with Chlorhexidine or simply diluted bleach. Treatment is symptomatic with antiseptic baths and antibiotic therapy to treat superinfections, in the most severe cases discontinuation or change of molecule should be discussed as appropriate [4].

Progressively, onycholysis disappears completely within a few months after the end of chemotherapy; hyperpigmentation usually subsides, at least partially, after the cytotoxic treatment is stopped. In rare cases, the lesions are permanent. [1]

Conclusion

Onycholysis is an unusual reaction that may occur in some patients receiving weekly low-dose Paclitaxel therapy. This reaction affects the quality of life of patients but does not justify discontinuation of therapy. However, clinicians should be aware of the possibility of this effect and should be prepared to counsel patients on various preventive measures and sun protection.

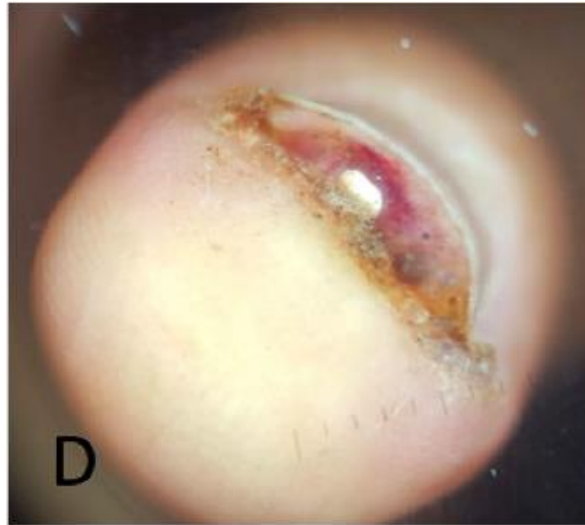


A : Clinical photo showing diffuse pigmentation of the nails of the hands, with total onycholysis.



B: clinical photo of the free edge of the nail illustrating the detachment of the nail tablet with thick yellowish foul-smelling liquid.





C, D : Dermoscopic image showing total onycholysis with diffuse pigmentation.

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