

Recurrent Microinvasive Subungueal Squamous Cell Carcinoma in a HIV Patient: a Case of Good Response to Photodynamic Therapy

Aurora Alessandrini^{1,2}, Valeria Evangelista^{1,2}, Alessia Barisani^{1,2}, Sabina Vaccari^{1,2}, Emi Dika^{1,2}, Bianca Maria Piraccini^{1,2}, Michela Starace^{1,2}

Dermatology - IRCCS Azienda Ospedaliero-Universitaria di Bologna, Bologna, Italy
Department of Experimental, Diagnostic and Specialty Medicine (DIMES) Alma Mater Studiorum University of Bologna, Italy

Key words: subungueal squamous cell carcinoma, squamous cell carcinoma, HIV infection, photodynamic therapy, 5-aminolaevulinic acid

Citation: Alessandrini A, Evangelista V, Barisani A, et al. Recurrent microinvasive subungueal squamous cell carcinoma in a HIV patient: a case of good response to photodynamic therapy. *Dermatol Pract Concept*. 2022;12(4):e2022136. DOI: https://doi.org/10.5826/ dpc.1204a136

Accepted: February 21, 2022; Published: October 2022

Copyright: ©2022 Alessandrini et al. This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial License (BY-NC-4.0), https://creativecommons.org/licenses/by-nc/4.0/, which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original authors and source are credited.

Funding: None.

Competing interests: None.

Authorship: All authors have contributed significantly to this publication.

Corresponding author: Bianca Maria Piraccini, Dermatology - IRCCS Policlinico di Sant'Orsola - Department of Experimental, Diagnostic and Specialty Medicine (DIMES) Alma Mater Studiorum University of Bologna, Italy. Via G. Massarenti 1, 40138 Bologna, Italy. E-mail: biancamaria.piraccini@unibo.it

Introduction

A 37-year-old male patient with a verrucous lesion affecting the second finger of the left hand, present for about 3 months. Medical history revealed HIV infection, Kaposi sarcoma, anal squamous cell carcinoma (SCC) and muco-cutaneous leishmaniasis. The diagnosis of microinvasive subungual SCC was made with a punch biopsy. The patient denied radical surgery and a conservative shaving was performed. Eight months later, the lesion relapsed (Figure 1, A and B). The diagnosis of recurrent subungual SCC was made by pathology. An X-ray of the finger excluded a bone involvement. Due to the patient decision of denying surgery, we decided to perform a cycle of 4 sessions of conventional photodynamic therapy (C-PDT), using methyl aminolevulinate (MAL) (METVIX[®] cream, Galderma Medical Solutions) under occlusion for three hours. The lesion was irradiated by a red light-emitting diode lamp (Aktilite CL128[®], Galderma, wavelength 630 nm), at 80 mW/cm² for 12 minutes. The procedure was repeated 4 times at one-week intervals. After the first step we observed a partial improvement (Figure 1, C and D) After the fourth C-PDT step, the lesion had almost completely disappeared (Figure 1, E and F). The patient did not relapse 6 months after last C-PDT session.



Figure 1. (A) clinical presentation of recurrent subungual squamous cell carcinoma (SCC) on the second finger of the left hand. (B) Dermoscopy of the vertucous lesion, with hyperkeratosis and dotted vessels. (C) Recurrent subungual SCC after the first step of conventional photodynamic therapy (C-PDT). (D) Dermoscopy of the lesion after the first step of C-PDT. (E) Recurrent subungual SCC after the fourth step of C-PDT. (F) Dermoscopy of the lesion after the fourth step of C-PDT.

Teaching point

PDT is a safe, non-invasive therapy, with good cosmetic results, for several dermatologic conditions, such as actinic keratosis and superficial non-melanoma skin cancer [1-2]. We hypothesize that C-PDT may be a promising therapy for high-risk recurrence SCC, especially in acral sites, leading to a rapid healing process and being at the same time a well-tolerated, less painful procedure.

References

- Tan B, Sinclair R, Foley P. Photodynamic therapy for subungual Bowen's disease. *Australas J Dermatol.* 2004;45(3):172-174. DOI: 10.1111/j.1440-0960.2004.00082.x. PMID: 15250896.
- Wu L, Chen W, Su J, et Al. Efficacy of the combination of superficial shaving with photodynamic therapy for recalcitrant periungual warts. *Photodiagnosis Photodyn Ther.* 2019;27:340-344. DOI: 10.1016/j.pdpdt.2019.06.021. PMID: 31252143.