

Involvement of orbital cavity [5] and conjunctiva [6] has been reported in patients with BPDCN, but optic nerve involvement has never been reported before. This is the first report of a patient with BPDCN who presented with complete monocular vision loss due to involvement of the optic nerve. This is an unexpected association between a rare disease and a devastating symptom. This case report contributes to the limited literature that we currently have on BPDCN and highlights the need for better understanding with the goal of early diagnosis in patients who have known risk factors for CNS involvement, which can lead to proper therapy such as timely intrathecal chemotherapy, and furthermore, for taking preventive steps to avoid devastating complications.

Disclosure statement

The authors report no conflicts of interest in this work.

References

- [1] Marafioti T, Paterson JC, Ballabio E, et al. Novel markers of normal and neoplastic human plasmacytoid dendritic cells. *Blood*. 2008;111:3778–3792.
- [2] Arber DA, Orazi A, Hasserjian R, et al. The 2016 revision to the world health organization classification of myeloid neoplasms and acute leukemia. *Blood*. 2016;127:2391–2405.
- [3] Pagano L, Valentini CG, Pulsoni A, et al. Blastic plasmacytoid dendritic cell neoplasm with leukemic presentation: an Italian multicenter study. *Haematologica*. 2013;98:239–246.
- [4] Feuillard J, Jacob MC, Valensi F, et al. Clinical and biologic features of CD4(+)CD56(+) malignancies. *Blood*. 2002;99:1556–1563.
- [5] Inoue D, Maruyama K, Aoki K, et al. Blastic plasmacytoid dendritic cell neoplasm expressing the CD13 myeloid antigen. *Acta Haematol*. 2011;126:122–128.
- [6] Matsuo T, Ichimura K, Tanaka T, et al. Bilateral conjunctival lesions in blastic plasmacytoid dendritic cell neoplasm. *J Clin Exp Hematop*. 2011;51:49–55.
- [7] Vigemyr G. [An young boy with an atypic rash]. *Tidsskr nor Laegeforen*. 2014;134:946–948.
- [8] Julia F, Petrella T, Beylot-Barry M, et al. Blastic plasmacytoid dendritic cell neoplasm: clinical features in 90 patients. *Br J Dermatol*. 2013;169:579–586.
- [9] Martin-Martin L, Almeida J, Pomares H, et al. Blastic plasmacytoid dendritic cell neoplasm frequently shows occult central nervous system involvement at diagnosis and benefits from intrathecal therapy. *Oncotarget*. 2016;7:10174–10181.

LETTER TO THE EDITOR

PATEO syndrome: periarticular thenar erythema with onycholysis

Alexandra K. Rzepecki^a , Loren Franco^b and Beth N. McLellan^c

^aDepartment of Dermatology, University of Michigan Medical School, Ann Arbor, MI, USA; ^bDivision of Dermatology, Department of Medicine, Albert Einstein College of Medicine, Bronx, NY, USA; ^cDivision of Dermatology, Department of Medicine, Albert Einstein College of Medicine, New York, NY, USA

Introduction

Periarticular thenar erythema with onycholysis (PATEO) syndrome, a subtype of hand-foot syndrome first defined by Childress and Lokich [1], is a rare cutaneous toxicity that may manifest in patients undergoing treatment with paclitaxel or docetaxel. In contrast to hand-foot syndrome, PATEO syndrome is characterized by: (1) palmar erythema mainly over the thenar and hypotherar eminences; (2) violaceous coloration predominantly of the dorsum of the hands, especially over the joints of the hands and around the Achilles tendon area and (3) nail changes that frequently progress to onycholysis. We present a patient undergoing treatment with taxane-based chemotherapy who despite developing PATEO syndrome was able to continue her treatment thanks to adequate dermatologic management.

Case report

A 54-year-old woman undergoing chemotherapy for breast cancer developed a pruritic, burning eruption on the hands and

feet after her sixth infusion of paclitaxel. She had previously been using 1% hydrocortisone cream on the site with minimal relief. Physical examination revealed erythematous-violaceous scaly plaques on the dorsal hands (Figure 1) and over the right Achilles tendon (Figure 2) and development of onycholysis and subungual hemorrhages on the nails (Figure 2). The patient was diagnosed with periarticular thenar erythema with onycholysis (PATEO) syndrome secondary to paclitaxel. She began treatment with fluocinonide 0.05% ointment twice daily, was counseled to soak the nails in diluted vinegar and was also advised to keep her hands cooled in ice baths during subsequent paclitaxel infusions. Her cutaneous symptoms improved within five weeks of diagnosis and she was able to finish her chemotherapy regimen without any need for dose reduction.

Discussion

Although the pathophysiologic mechanism leading to PATEO syndrome is largely unknown, the severity of this cutaneous



CONTACT Alexandra K. Rzepecki  arzepeck@med.umich.edu  Albert Einstein College of Medicine, Montefiore Medical Center, 111 East 210th Street, Bronx, NY 10467, USA



Figure 1. Presence of erythematous-violaceous scaly plaques on the dorsal hands characteristic of PATEO.



Figure 2. Presence of erythematous-violaceous scaly plaques over the right Achilles tendon and onycholysis and subungual hemorrhages on the nails.

manifestation is thought to be related to dosing interval and the cumulative number of chemotherapy cycles [1,2]. Even though nail and skin toxicity are not life threatening, effective management to ameliorate the symptoms is a necessity to allow patients to continue their chemotherapy regimen. In some cases, patients may require dose adjustment, as was the case in a series of three patients with PATEO syndrome described by Rodríguez-Lomba et al. [3]

Despite development of PATEO syndrome, our patient was able to continue her chemotherapy regimen with use of a potent topical corticosteroid and cooling her hands in ice baths during subsequent paclitaxel infusions, an approach similar to Scotté et al's [4,5] frozen glove therapy that was found to significantly reduce nail and skin toxicity associated with taxane-based chemotherapy. We present this case to heighten awareness of this unique manifestation of hand-foot syndrome specific to taxane chemotherapy and share a successful approach towards management.

Disclosure statement

No potential conflict of interest was reported by the authors.

ORCID

Alexandra K. Rzepecki  <http://orcid.org/0000-0002-2976-1861>

References

- [1] Childress J, Lokich J. Cutaneous hand and foot toxicity associated with cancer chemotherapy. *Am J Clin Oncol.* 2003;26:435–436.
- [2] Dow EN, Piccolo J, Segal EM, et al. Drug induced periarticular thenar erythema with onycholysis related to nano-albumin bound paclitaxel therapy. *Cancer Treat Commun.* 2015;4(Supplement C):161–164.
- [3] Rodríguez-Lomba E, Molina-López I, Suárez-Fernández R, et al. Periarticular thenar erythema and onycholysis syndrome: a manifestation of taxane-induced cutaneous toxicity. *Actas Dermo-Sifiliográficas Engl Ed.* 2017;108:595–597.
- [4] Scotté F, Tourani JM, Banu E, et al. Multicenter study of a frozen glove to prevent docetaxel-induced onycholysis and cutaneous toxicity of the hand. *J Clin Oncol off J Am Soc Clin Oncol.* 2005;23:4424–4429.
- [5] Scotté F, Banu E, Medioni J, et al. Matched case-control phase 2 study to evaluate the use of a frozen sock to prevent docetaxel-induced onycholysis and cutaneous toxicity of the foot. *Cancer.* 2008;112:1625–1631.

LETTER TO THE EDITOR

First report of proton beam therapy for breast angiosarcoma from the prospective PCG registry

Cameron S. Thorpe^a, Joshua R. Niska^a, Daniel C. Brunnhoelzl^b, Lisa A. McGee^a, Christy M. Kessler^c, William F. Hartsell^c and Carlos E. Vargas^a

^aDepartment of Radiation Oncology, Mayo Clinic, Phoenix, AZ, USA; ^bCreighton University School of Medicine at St. Joseph's Hospital and Medical Center, Phoenix, AZ, USA; ^cNorthwestern Medicine Chicago Proton Center, Warrenville, IL, USA

Angiosarcoma is a rare neoplasm of the vascular endothelium. Breast angiosarcoma can present *de novo* or as a secondary malignancy after treatment for breast cancer. Postsurgical lymphedema [1] and prior radiotherapy (RT) [2]

CONTACT Carlos E. Vargas  vargas.carlos@mayo.edu  Department of Radiation Oncology, Mayo Clinic, 5881 East Mayo Boulevard, Phoenix, AZ, 85054 USA

 Supplemental data for this article can be accessed [here](#).

© 2017 Acta Oncologica Foundation

<https://doi.org/10.1080/0284186X.2017.1423179>