

# Unusual scrotal and penile ulcerations together with palmar-plantar erythrodysesthesia syndrome in a patient with metastatic colon carcinoma treated with capecitabine

---

Ljubojević Hadžavdić, Suzana; Štulhofer Buzina, Daška; Murtezani, Imbrane; Skerlev, Mihael

Source / Izvornik: **Journal of the European Academy of Dermatology and Venereology**, 2017, 31, e304 - e306

Journal article, Accepted version

Rad u časopisu, Završna verzija rukopisa prihvaćena za objavljivanje (postprint)

<https://doi.org/10.1111/jdv.14090>

Permanent link / Trajna poveznica: <https://urn.nsk.hr/urn:nbn:hr:105:697001>

Rights / Prava: [In copyright](#)/[Zaštićeno autorskim pravom](#).

Download date / Datum preuzimanja: **2025-04-02**



Repository / Repozitorij:

[Dr Med - University of Zagreb School of Medicine](#)  
[Digital Repository](#)





## Središnja medicinska knjižnica

**Ljubojević Hadžavdić S., Štulhofer Buzina D., Murtezani I., Skerlev M. (2017) *Unusual scrotal and penile ulcerations together with palmar-plantar erythrodysesthesia syndrome in a patient with metastatic colon carcinoma treated with capecitabine.* Journal of the European Academy of Dermatology and Venereology, 31 (6). pp. e304-6. ISSN 0926-9959**

[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1468-3083](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1468-3083)

<http://dx.doi.org/10.1111/jdv.14090>

<http://medlib.mef.hr/2918>

University of Zagreb Medical School Repository

<http://medlib.mef.hr/>

**UNUSUAL SCROTAL AND PENILE ULCERATIONS TOGETHER WITH  
PALMAR-PLANTAR ERYTHRODYSESTHESIA SYNDROME IN A PATIENT  
WITH METASTATIC COLON CARCINOMA TREATED WITH CAPECITABINE**

Associate professor Ljubojevic Hadzavdic<sup>1</sup>, MD; PhD, Daska Stulhofer Buzina<sup>1</sup>; MD, PhD,  
Imbrane Murtezani<sup>2</sup>, MD, PhD, Professor Mihael Skerlev<sup>1</sup>, MD, PhD

<sup>1</sup>Department of Dermatology and Venereology, University Hospital Center Zagreb, School of  
Medicine University of Zagreb, Croatia

<sup>2</sup>Department of Dermatology and Venereology, General Hospital Sibenik, Sibenik, Croatia

**Name of the institution at which the research was conducted:** Department of Dermatology  
and Venereology, University Hospital Center Zagreb, School of Medicine University of  
Zagreb, Salata 4, 10000 Zagreb, Croatia

**Correspondence:** Associate Professor Suzana Ljubojevic Hadzavdic, MD, PhD Department  
of Dermatology and Venereology, University Hospital Center Zagreb, School of Medicine  
University of Zagreb, Salata 4, 10000 Zagreb, Croatia

Tel: +385-1-2368-930

Email: [suzana.ljubojevic@gmail.com](mailto:suzana.ljubojevic@gmail.com)

**Manuscript word count:** 629

**Figures:** 2

**Table:** 0

**Funding sources:** none

**Conflicts of interest:** none to declare

Unusual scrotal and penile ulcerations together with palmar-plantar erythrodysesthesia in a patient with metastatic colon carcinoma treated with capecitabine

Suzana Ljubojevic Hadzavdic<sup>1</sup>, Daska Stulhofer Buzina<sup>1</sup>, Imbrane Murtezani<sup>2</sup>, Mihael Skerlev<sup>1</sup>

<sup>1</sup>Department of Dermatology and Venereology, University Hospital Center Zagreb, School of Medicine University of Zagreb, Croatia

<sup>2</sup>Department of Dermatology and Venereology, General Hospital Sibenik, Sibenik, Croatia

Capecitabine is an orally administered chemotherapeutic drug used in the treatment of colorectal and breast cancer, as well as of metastatic disease, either as a single agent or combined with other agents (1).

A 63 -year-old man presented with painful penile and scrotal ulcerations (Figure 1). Four years prior to admission, the patient underwent ileocecal resection for cecum cancer (pT3, N1, M0, Duke`s C) with metastases in the mesocolic lymph nodes. He received 6 cycles of Mayo Clinic adjuvant regimen consisting of 5-fluorouracil (5-FU) and leucovorin (folinic acid). Three years after resection, positron emission tomography - computed tomography (PET/CT) revealed metastases in the mediastinal and para-aortic lymph nodes and lungs. Following the surgical treatment, the pathohistological finding was consistent with metastatic adenocarcinoma of the colon. Two months after the second surgery the patient was started on XELIRI (irinotecan and capecitabine) + bevacizumab. At the end of the first cycle, the patient was complaining of tingling and burning sensation on the tips of his fingers and toes. During the second cycle, he was complaining of the painful redness of his feet and palms. On physical examination, a marked erythema of his palms and feet was noted and hand-foot syndrome (palmar-plantar erythrodysesthesia, PPE) was diagnosed (Figures 2a and 2b). A skin barrier cream and moisturized ointments together with a short course of potent topical corticosteroids were prescribed, but they did not relieve the symptoms. At the beginning of the fourth cycle of chemotherapy, erythema was followed by painful ulcerations of his penis and scrotum (Figure 1). Capecitabine was thus discontinued. The penile and scrotal ulcerations together with the hand and foot symptoms resolved within 3 weeks of discontinuing capecitabine. Three months after reintroducing capecitabine, the patient re-developed genital and scrotal redness and ulcerations, together with hand and foot redness.

The most common cutaneous side effect of capecitabine is hand-foot syndrome, also known as palmar–plantar erythrodysesthesia (PPE). Other cutaneous adverse reactions such as

alopecia, nail changes, skin discoloration, cutaneous hyperpigmentation, photosensitivity reaction, and radiation recall syndrome have also been reported.<sup>2-4</sup> Recently, a case report described a delayed-type hypersensitivity reaction,<sup>5</sup> while another report described scleroderma-like skin changes associated with PPE associated with capecitabine<sup>6</sup>. However, to our knowledge, the coexistence of both genital and scrotal ulcerations together with PPE has been described in three patients only.<sup>7, 8</sup> For that reason, there is no consistent grading system to describe scrotal and penile involvement associated with capecitabine. Sapp et al<sup>7</sup> suggest that the manifestations of PPE are similar to the symptoms experienced with scrotal and penile involvement, and that this variant should be incorporated into the grading system describing PPE. Grade 1 PPE is characterized by the following symptoms: numbness, dysesthesia and tingling in the hands and feet.<sup>9</sup> In Grade 1, chemotherapy is usually continued and a skin barrier cream and moisturized ointment are prescribed.<sup>10</sup> In Grade 2 PPE, patients experience painful erythema with swelling of palms and soles, while Grade 3 is characterized by desquamation, ulceration, blistering and severe pain.<sup>9</sup> In this grade, the dose of chemotherapy is either maintained or reduced by 25%.<sup>9</sup> Managing Grade 3 PPE includes interrupting one cycle of chemotherapy, followed by the dose adjustment alongside moist ointment and supportive care.<sup>10</sup> Genital and scrotal ulcerations fall into Grade 3 severity.

The burning sensation of the skin, together with painful ulcerations, especially in the genital region, have negative influence on the quality of life, belief in recovery, and often result with the need of permanent or temporary interruption of the oncological treatment, which may endanger the completion of the therapy.

This case represents a rare side-effect of capecitabine. Based on the significant pain and discomfort that our patient suffered, it is important for practitioners to recognize this entity as a side effect of capecitabine, in order to minimize discomfort and complications.

## Disclosure

The authors have stated that they have no conflicts of interest.

## References

1. Groom K, Penna M, Arul D, et al. Capecitabine-related liver lesions: sinusoidal dilatation mimicking liver metastasis. *Clin Case Rep* 2016;4(6):545-8.
2. Walko CM, Lindley C. Capecitabine: A Review. *Clinical Therapeutics*. 2005;27(1): 2-44.
3. Litt JZ. Drug eruptions. In: Litt JZ, ed. *Drug Eruption Reference Manual*. DERM, Parthenon Publishing Group, London, 2001:44-5.
4. Xeloda - FDA prescribing information, side effects and uses - Drugs. <https://www.drugs.com/pro/xeloda.html>. Accessed on August 14, 2016
5. Demir S, Olgac M, Saglam S, Gelincik A, Colakoglu B, Buyukozturk S. Successful Capecitabine Desensitization for a Delayed-Type Hypersensitivity Reaction. *J Investig Allergol Clin Immunol*. 2016;26(1):66-7.
6. Saif MW, Agarwal A, Hellinger J, et al. Scleroderma in a Patient on Capecitabine: Is this a Variant of Hand-Foot Syndrome? *Cureus* 2016;8(6):e663. doi: 10.7759/cureus.663.
7. Sapp CM, DeSimone P. Palmar-plantar erythrodysesthesia associated with scrotal and penile involvement with capecitabine. *Clin Colorectal Cancer* 2007;6(5):382-5.
8. Fleta-Asín B, Alcántara-González J, Alonso-Castro L, et al. Genital erythrodysesthesia as a severe manifestation of capecitabine therapy: a report of 3 cases. *Arch Dermatol* 2011 Sep;147(9):1123-4. doi: 10.1001/archdermatol.2011.257.
9. Blum JL, Jones SE, Buzdar AU, et al. Multicenter phase II study of capecitabine in paclitaxel-refractory metastatic breast cancer. *J Clin Oncol* 1999; 17(2):485-93.

10. Son HS, Lee WY, Lee WS, et al. Compliance and effective management of the hand-foot syndrome in colon cancer patients receiving capecitabine as adjuvant chemotherapy. *Yonsei Med J* 2009; 50(6):796-802.



Figure 1

Ulceration of the penis and scrotum in patient with metastatic colon carcinoma treated with capecitabine



Figure 2a and 2b

Palmar-plantar erythrodysesthesia in patient with metastatic colon carcinoma treated with capecitabine



