

Bullous Kaposi Sarcoma: An Uncommon Blistering Variant in an HIV-Negative Patient

Eleonora Gherardi¹, Luca Tinunin², Tommaso Grassi³, Vincenza Maio², Vieri Grandi¹

¹ Section of Dermatology, Department of Health Sciences, University of Florence, Florence, Italy

² Section of Pathology, Department of Health Sciences, University of Florence, Florence, Italy

³ Unit of Hygiene and Preventive Medicine, P. Palagi Hospital, Florence, Italy

Citation: Gherardi E, Tinunin L, Grassi T, Maio V, Grandi V. Bullous Kaposi Sarcoma: An Uncommon Blistering Variant in an HIV-Negative Patient. *Dermatol Pract Concept*. 2024;14(2):e2024113. DOI: <https://doi.org/10.5826/dpc.1402a113>

Accepted: November 17, 2023; **Published:** April 2024

Copyright: ©2024 Gherardi 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: Eleonora Gherardi, MD, University of Florence, Department of Health Sciences, Section of Dermatology, Ospedale P.Palagi, viale Michelangiolo 41, 50125 Florence, Italy. Tel: 055-6939624 Email: eleonora.gherardi@unifi.it

Case Presentation

We present the case of an 82-year-old Italian male with a localized eruption on the lower limbs persisting for over two years. The lesions initially received treatment with local and systemic corticosteroids but showed no improvement. On examination, brownish violaceous patches, papules, plaques, and tense blisters with serous content were observed on healthy skin, primarily affecting the ankles, dorsum, fingers, and soles of the feet (Figure 1A). The patient reported no local or systemic symptoms, nor lymphedema. Histopathological analysis showed a dermal proliferation of irregular abnormal small vessels intermingled with spindle cells and a patchy lympho-histiocytic infiltrate with scattered plasma cells (Figure 1B). Additional features included slit-like spaces with erythrocytes and siderophages. Nuclear HHV8 immunohistochemical expression was demonstrated (Figure 1C). The diagnosis of bullous Kaposi sarcoma (KS) was established based on these findings. The patient was tested for HIV and resulted negative. Since the patient had no systemic

symptoms, no further instrumental exams were conducted. Considering the indolent nature of the lesions and the absence of systemic involvement, the patient was managed conservatively with elastic compression therapy. Regular follow-up visits were scheduled to monitor the progress and assess treatment response. Throughout the follow-up period, no significant changes or complications were observed.

Teaching Point

Bullous Kaposi sarcoma is a rare variant of Kaposi sarcoma characterized by the presence of bullous lesions [1]. It should be considered in the differential diagnosis of blistering lesions, particularly in elderly individuals from the Mediterranean region [2]. The distinctive clinical and histopathological features contribute to its unique presentation. Various hypothesis have been proposed to elucidate the formation of vesiculobullous lesions in KS. One suggests that the local effects of the tumoral infiltration, including the occlusion of lymphatic vessels and subsequent dermal edema, may

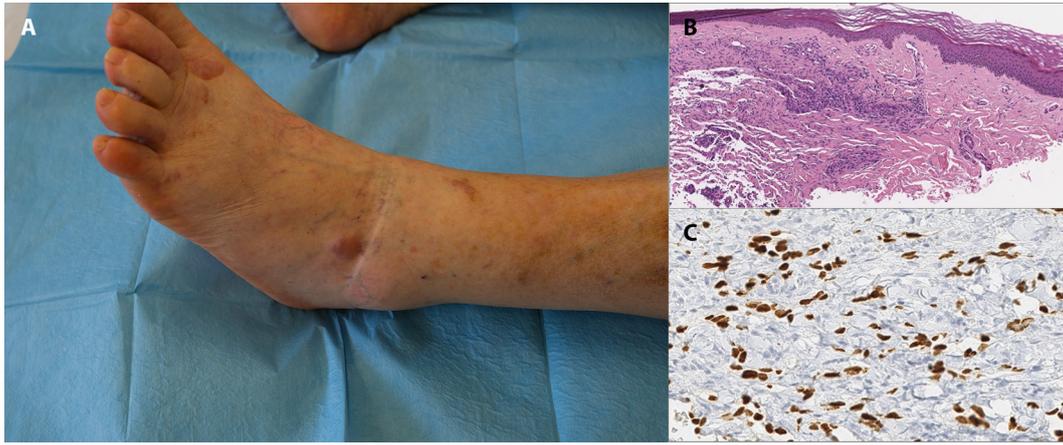


Figure 1. A) Clinical picture of an 82-year-old male affected by HIV-negative Kaposi sarcoma with slow growing asymptomatic bullae on his legs. B) Histopathologic examination showed abnormal vascular channels intermingled with spindle cells and a patchy lympho-histiocytic infiltrate with scattered plasma cells (H&E, original magnification 20X). C) HHV8 nuclear positivity in tumor cells by immunohistochemistry (HHV8 Latency associated nuclear antigen 1 -LANA1- staining, 40X).

explain the development of such lesions. Clinicians should maintain a high index of suspicion for bullous Kaposi sarcoma in elderly individuals with blistering lesions, enabling timely diagnosis and appropriate management. Further studies are warranted to improve our knowledge of this rare variant and enhance treatment approaches.

References

1. Kandemir NO, Barut F, Gün BD, Tekin NS, Keser SH, Ozdamar SO. Histopathological analysis of vesicular and bullous lesions in Kaposi sarcoma. *Diagn Pathol* 2012;7:101.
2. Cesarman E, Damania B, Krown SE, Martin J, Bower M, Whitby D. Kaposi sarcoma. *Nat Rev Dis Primers* 2019;5:9.