Journal of Dermatology Research

ATHENAEUM SCIENTIFIC PUBLISHERS

Letter to Editor

Sepsis and Acute Pancreatitis in Tumor-Stage Mycosis Fungoides and Treatment with Brentuximab-Vedotin

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Citation: Jost M, et al. Sepsis and Acute Pancreatitis in Tumor-Stage Mycosis Fungoides and Treatment with Brentuximab-Vedotin. J Dermatol Res. 2023;4(1):1-3.

https://doi.org/10.46889/JDR.2023.4102

Received Date: 11-01-2023

Accepted Date: 26-01-2023

Published Date: 04-02-2023

Letter to Editor

Dear Editor, we report a case of a 67-year-old male patient who was first diagnosed with tumor-stage Mycosis Fungoides (MF) (T3N0M0B0a, clinical stage IIB - current ISCL/EORTC classification) in 2017. During the course of the disease of MF the patient was treated with bexarotene, gemcitabine and chlorambucil. All these treatments helped only short-term, quickly followed by relapses of the skin lesions. In September 2018, the patient developed a rapidly progressive disease with erythematous patches, plaques and ulcerated tumors (mSWAT 20) (Fig. 1). CD30 expression was determined in several skin biopsies, each with an expression rate of 2-5% (Fig. 1). Despite this relatively low amount, the tumor board decision was made favoring the monoclonal CD30-antibody Brentuximab-Vedotin (BV) application. In October 2018, BV was first administered with the maximum dose of 180 mg (1.8mg/kg of body weight). Five days after the infusion, the patient developed abdominal pain, diarrhea, chills and fever. Blood cultures were positive for Methicillin-Resistant Staphylococcus Aureus (MRSA) and a MRSA-sepsis was diagnosed. Intensive medical care was requiredand under symptomatic treatment, the patient recovered completely. Two months later - in December 2018 - the patient presented again in our department to evaluate the skin lesions, displaying a partial response (mSWAT 12) (Fig. 1). At this time, the sepsis was not considered in direct context with the medication. The patient had several ulcerations and had been a known MRSA-patient already before the initiation of the treatment. Therefore, the patient received BV for a second time in the total dose of 180 mg. Nine days after the infusion, abdominal pain with vomiting, diarrhea and unconsciousness occurred. The patient was readmitted to the intensive care unit and an acute pancreatitis was diagnosed (lipase 1502 U/l). Under symptomatic therapy and close monitoring, pancreatitis resolved within two weeks. BV is a CD30 antibody-drug conjugate. The cytotoxic component is monomethylauristatin E, a potent inhibitor of microtubule assembly [1]. It is approved for the treatment of patients with relapsed or refractory Hodgkin's Lymphoma (HL), systemic Anaplastic Large-T-cell Lymphoma (sALCL) and in addition, for the treatment of CD30-positive Cutaneous T-cell Lymphoma (CTCL) [2]. This case report describes two serious complications after the administration of BV in the same patient. Both belong in the spectrum of rare to infrequent side effects. Awareness of the possibility of pancreatitis as a side effect of BV is essential, especially because it seems to occur not immediately but within days or weeks after the treatment application. The literature describes pancreatitis in patients with HL, ALCL and cutaneous Gamma Delta T-cell Lymphoma (GD-TCL) [3]. The onset of pancreatitis in most cases seems to be delayed with a range of 7-33 days [1,4]. In our patient the first symptoms presented nine days after the BV-administration. Acute pancreatitis can lead to fatal outcomes. BV reinduction should be carefully discussed. However, in patients without any other treatment options, it might be possible to reinduce BV without the risk of side effect recurrence [1,3].

Keywords: Brentuximab-Vedotin; CTCL; CD30-Positive; Sepsis; Pancreatitis

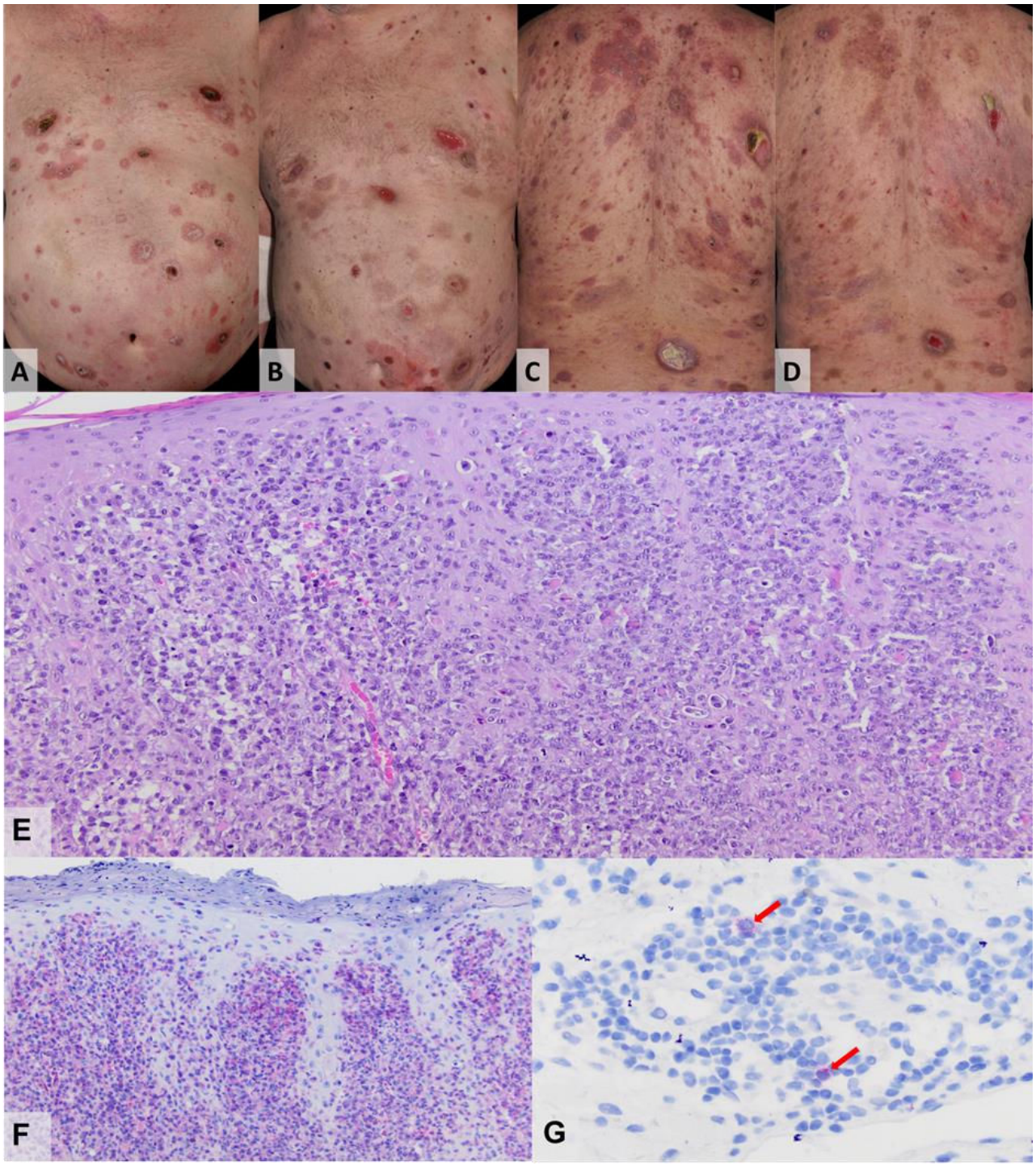

Figure 1: Clinical presentation in September 2018 (A, C) and clinical improvement after the first application of BV in December 2018 (B, D). Histopathology of a plaque (E: Hematoxylin and Eosin; F: CD3) (G) Immunohistochemical stain of the same biopsy sample showed a CD30 expression rate of 2-5%. Original magnification in E: 200x; F: 100x and G: 400x.

Funding
Funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) - 413490537.

Conflict of Interest
The authors have no conflict of interest to declare.

References

1. Gandhi MD, Evens AM, Fenske TS, Hamlin P, Coiffier B, Engert A, et al. Pancreatitis in patients treated with brentuximab vedotin: a previously unrecognized serious adverse event. Blood. 2014;123:2895-97.
2. O'Connor OA, Lue JK, Sawas A, Amengual JE, Deng C, Kalac M, et al. Brentuximab vedotin plus bendamustine in relapsed or refractory Hodgkin's lymphoma: an international, multicentre, single-arm, phase 1-2 trial. The Lancet Oncol. 2018;19:257-66.
3. Maradana S, Akella P, Nalluru SS, Jindal V, Siddiqui AD. Hypertriglyceridemia induced pancreatitis due to brentuximab therapy: first case report. Cureus. 2019.
4. Urru SA, Mariotti E, Carta P, Massidda S, Marcias M, Murru R, et al. Acute pancreatitis following brentuximab vedotin therapy for refractory Hodgkin lymphoma: a case report. Drugs RD. 2014;14:9-11.