Hydroa Vacciniforme-Like Eruption Associated with Epstein-Barr Virus Infection in an Older Adult

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Dear Editor:

A 70-year-old woman presented with a 2-week history of facial eruption. She was treated with corticosteroid, on the basis of a diagnosis of allergic contact dermatitis, which improved her condition. However, it recurred after 1 year. She did not complain about any subjective photosensitivity or hypersensitivity to mosquito bites. Physical examination revealed multiple erythematous papulopustules with ulcers and crusts on the face, accompanied by edema on both cheeks and eyelids (Fig. 1). She was otherwise healthy, except for having had cryptogenic liver cirrhosis 7 years previously. Histopathological examination was performed on the forehead. Small to medium-sized atypical lymphocytes infiltrated around the perivascular and

periadnexal spaces in the entire dermis (Fig. 2A, B). These atypical cells were positive for CD2, CD3, CD5, and T-cell intercellular antigen-1, and focally positive for CD8 (Fig. 2C, D). Some reactive cells were positive for CD4, and none of the tumor cells expressed CD56, CD20, or CD30. Additionally, the infiltrating cells were positive for Epstein-Barr virus (EBV)-encoded RNA in *in situ* hybridization (Fig. 2E). Laboratory tests revealed mild leukopenia (white blood cell count, $2.4 \times 10^3/\mu\text{L}$), mildly elevated liver enzyme levels (aspartate aminotransferase and alanine aminotransferase levels of 100 and 98 U/L, respectively), and elevated lactate dehydrogenase levels of 233 U/L (reference range, 100~200 U/L). The serum was positive for EBV-capsid antigen immunoglobulin (Ig) G and EBV

Fig. 1. Multiple erythematous crusted papulopustules are observed, with ulcers on both cheeks and the forehead. Arrows indicate the biopsy sites: one pustule and one papule on the forehead.

Received December 11, 2014, Revised February 10, 2015, Accepted for publication February 27, 2015

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Fig. 2. Small to medium-sized atypical lymphoid cells infiltrate the perivascular and periadenexal areas throughout the entire dermis (hematoxylin and eosin staining; A: $\times 40$, B: $\times 200$). The atypical cells are positive for (C) CD3, focally positive for (D) CD8, and positive for (E) *in situ* hybridization for Epstein-Barr virus (EBV)-encoded RNAs ($\times 100$).

early antigen IgG and IgM. Quantification of EBV by using real-time polymerase chain reaction (PCR) revealed 200.5 copies/ μ l. Ultraviolet A provocation test on the back did not provoke symptoms. PCR revealed no monoclonal T-cell receptor (TCR)-gamma gene rearrangement. Except for hepatosplenomegaly, no other evidence of systemic involvement was found. Finally, a diagnosis of hydroa vacciniforme (HV)-like eruption was concluded. At 1-year follow-up, new lesions continually arose with the application of topical corticosteroid.

HV-like eruption, or atypical HV, occurs predominantly in children and adolescents in East Asia and Latin America. It

is characterized by an edematous, crusted papulovesicular eruption similar to HV¹⁻⁴. Unlike HV, however, it could also occur in non-sun-exposed areas, and is accompanied by fever, lymphadenopathy, or hepatosplenomegaly¹⁻⁴. Because HV-like lymphoma could occur in non-sun-exposed areas and is accompanied by systemic symptoms, it can be confused with HV-like eruption. However, as recent studies revealed that most lesions contain monoclonal TCR rearrangement, the World Health Organization classification system newly categorized it as one of the EBV-associated lymphoproliferative disorders of childhood in 2008⁵. These three disease categories were related to EBV

infection and predominantly occur in children and adolescents. However, HV-like eruption is occasionally observed in adults aged older than 60 years: one case was that of a 65-year-old woman with orogenital ulcer, whose symptoms were well controlled with corticosteroid and famciclovir³, whereas the other was a case of a 74-year-old man whose condition deteriorated rapidly and who died within 3 months of diagnosis⁴. Thus, we report a case of HV-like eruption in an older adult manifesting chronic feature. Furthermore, the disease entity needs to be clarified and the disease properties need to be investigated in future studies.

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<http://dx.doi.org/10.5021/ad.2015.27.6.791>

Gray Hair Associated with the Multitargeted Receptor Tyrosine Kinase Inhibitor Pazopanib

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Dear Editor:

A 38-year-old man was referred to our hospital with a left renal mass and multiple paraspinal and rib masses. The diagnosis was clear cell renal cell carcinoma with multiple bone metastases with soft tissue formation, and multiple lymph node metastases in both histological and radiological evaluations. He was treated with 800 mg pazopanib once daily. During the treatment, he began to notice a gradual increase in scalp hair loss and a change in his hair

texture. Before starting the therapy, he had coarse, black hair (Fig. 1A), and denied ever dying his hair or having a history of alopecia. By the fifth month of therapy, nearly all of his scalp hair had turned white, whereas his other body hair had changed little (Fig. 1B, C). In addition, his hair texture changed from coarse to fine. The therapy was discontinued after 8 months because of disease progression, and the new hair growth was pigmented. On the basis of these findings, we concluded that the hair de-

Received November 6, 2014, Revised February 26, 2015, Accepted for publication March 18, 2015

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