A Young Man with Multiple Skin Lesions on a Positron Emission Tomography-Computed Tomography Scan

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A 20-year-old young man with neuro-Behçet Syndrome (NBS) presented with severe, painful lesions that covered most of his body. He was diagnosed with Behçet's Syndrome (BS) 10 years ago with the guidance of the ISG(International Study Group) criteria,[1] based on findings such as oral aphthae, vitreous cells on eye examination, erythema nodosum, and occasional papulopustular lesions (PPL). He was started on colchicine 2 mg/day. Along with the medication, the patient had not experienced erythema nodosum or oral aphthae for several years. The only symptom that occurred with medication was PPL on his face. In January 2024, he experienced an episode of diplopia; cranial magnetic resonance imaging revealed a hyperintense lesion in the right mesencephalon, compatible with acute NBS. Following pulse steroid therapy with intravenous methylprednisolone (1 g/day for 5 days), treatment with infliximab and azathioprine was initiated. Oral prednisolone was subsequently continued at 1 mg/kg/day for one month and then tapered to a maintenance dose of 5 mg/day by the end of the third month. His neurological symptoms responded well; however, multiple skin lesions exacerbated significantly, covering mostly his back and trunk (Figure 1). He started to experience fever along with a high acute phase response at the same time. His physical examination and blood cultures revealed no signs of infection. Echocardiography for infective endocarditis was negative. An FDG-18 positron emission tomography-computed tomography scan was performed to evaluate for vasculitis and revealed multiple nodular skin lesions with high FDG (Fluorodeoxyglucose) uptake (SUV max: 9.92), indicative of intense inflammatory activity rather than malignancy or infection. Additionally, no evidence of vasculitis was found (Figure 2).

The patient's lesions were considered PPL associated with BS. Due to the high inflammatory background of Behçet's cutaneous flare, pulse steroids were re-administered, and the infliximab dosage was increased to 10 mg/kg, leading to significant improvement in the PPL.

Behçet's Syndrome is a chronic inflammatory disease that affects multiple organ systems, including the skin, mucosa, joints, eyes, veins, arteries, central nervous system, and gastrointestinal tract.[2] Papulopustular lesions, one of the common cutaneous manifestations of BS, are folliculitis or acneiform-like eruptions on an erythematous base.[3,4] The most commonly affected areas include the trunk, buttocks, and lower limbs, which are more specific to BS.[5] In a study examining whether the histopathological evaluation of PPL could help diagnose BS, lymphocytic vasculitis was found in 27.8% of BS patients but was not present in the control group, with a statistically significant difference (P = .046). This finding highlights the potential vasculitic nature of PPL in BS. Due to this inflammatory nature, immunosuppressive therapy resolves the lesions and prevents relapses.[6]

In this case, it was aimed to highlight that PPL may present with significant inflammation in clinical, laboratory, and imaging findings, and therefore may be difficult to treat and potentially require higher doses of immunosuppressive therapy. Written informed consent was obtained from the patient for the publication of this case report and any accompanying images.

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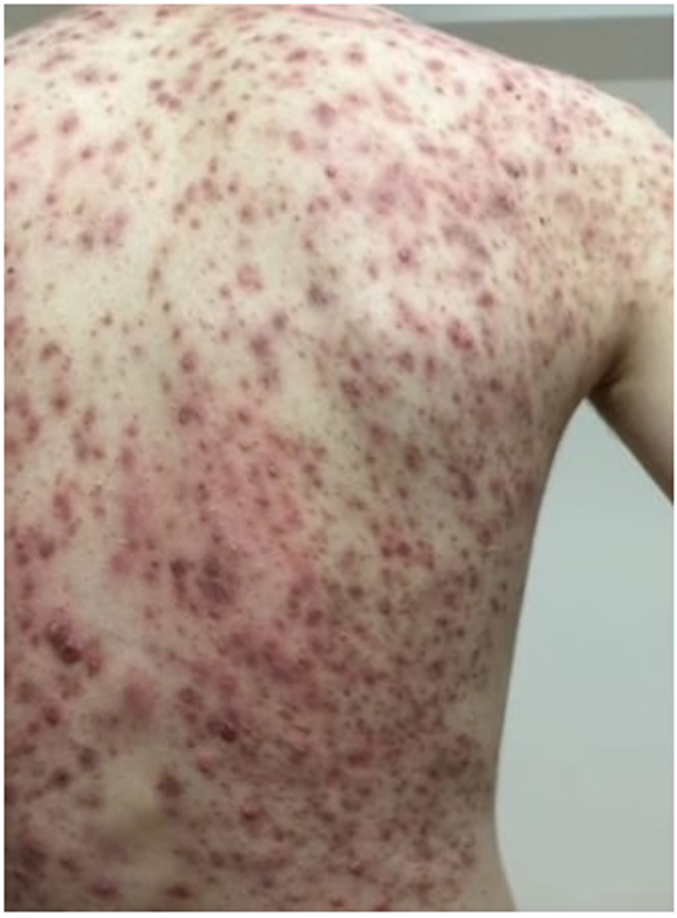

Figure 1. Diffuse exacerbation of acneiform and papulopustular lesions on the back.

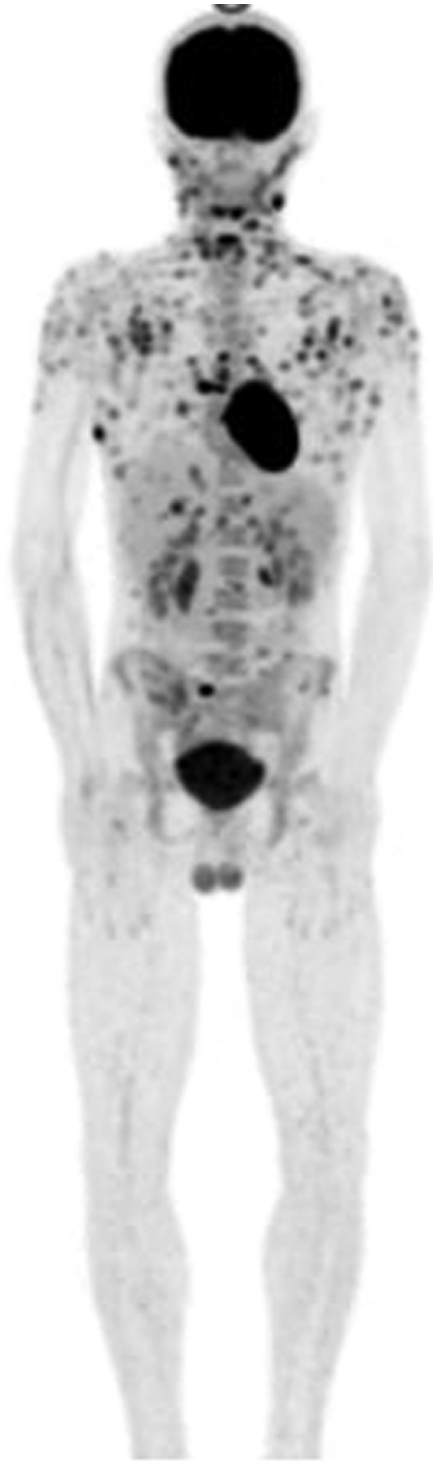

Figure 2. FDG-18 PET-CT scan demonstrated multiple nodular skin lesions with high FDG uptake.

Data Availability Statement: The data that support the findings of this study are available on request from the corresponding author.

Informed Consent: Written informed consent was obtained from the patient who participated in this study.

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