Dermatitis Artefacta Mimicking Pyoderma Gangrenosum

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Background

Dermatitis artefacta (DA), also known as factitial dermatitis, is a condition whereby an individual performs self-induced skin damage as a means to consciously or unconsciously satisfy a desire to assume the role of an ill-patient. By definition, this condition should be distinguished from malingering as well as Munchausen syndrome, as those psychological entities possess other unique features and patterns. DA is more common in females, early adults, and those with underlying psychiatric diagnoses or external stressors.

Patients will rarely admit their role and are more likely to actively conceal their involvement in the development of cutaneous manifestations, thus presenting particularly unique and puzzling diagnostic challenges. Various techniques, instrumentation, and chemicals may be utilized by the patient to induce these skin changes, and multiple anatomical sites may be involved, but lesions more often appear within the background of normal skin and are usually within easy reach of the patient. Ulcers are very common, but other morphologies can present and are only limited by each patient's level of motivation.[1,2]

Case Report

A middle-aged female presented with several large non-healing ulcers on the lower legs and left arm. The patient, who happens to be a retired nurse, stated that the lesions started over 4 months prior to presentation. On physical exam, large, deep, annular ulcerations were seen over the left arm and the bilateral lower legs. The most prominent lesions were noted on the left lower extremity (Figure 1 and Figure 2). Part of the initial work-up included venous and arterial Doppler studies which were negative for evidence of vascular disease. The patient was therefore admitted to the hospital floor for non-healing ulcers with a clinical suspicion for pyoderma gangrenosum. She had asserted that in the past she had been diagnosed with inflammatory bowel disease by a gastroenterologist, however, this was not able to be corroborated by the medical team. While in the hospital, she was managed by a multidisciplinary team consisting of specialists in rheumatology, dermatology, and internal medicine. Accordingly, two punch biopsies were performed on lesions revealing a dense superficial mixed cell infiltrate including neutrophils, histiocytes, lymphocytes, and eosinophils dispersed around a significant bed of ulceration. No signs of malignancy were noted on histology. In addition, direct immunofluorescence studies were negative, and a gram stain and bacterial cultures were unremarkable, presenting only mixed normal skin flora. Likewise, specific cultures for fungus including cultures for mycobacterial organisms also proved negative.

After this thorough work-up and given the fact that the histological features were not consistent with pyoderma gangrenosum, a self-inflicted skin disorder was at that time suspected. Hence, a sitter was asked to watch the patient around-the-clock while in the hospital. One week following the initialization of the sitter, the patient’s skin had improved dramatically. The patient’s son did ultimately discover a bottle of sodium hydroxide accompanied by several vials of suspicious and unlabelled powders in the bedside belongings of the patient. As a result, what was originally thought very likely to be a case of pyoderma gangrenosum was later diagnosed as dermatitis artefacta.

Discussion

Dermatitis artefacta is a diagnosis of exclusion, and thus some index of suspicion is absolutely necessary when testing and work-up yields no viable alternative diagnosis. The patient presented in this case exhibited many insidious but classical features of dermatitis artefacta including lack of supported alternative diagnosis, female gender, morphology of the wounds, as well as experience as a healthcare worker as a retired nurse. Healthcare workers are found to have higher incidence of DA and would likely be more knowledgeable and able to evade immediate detection through more effective means of self-trauma or possess the knowledge to feign a known cutaneous disease such as pyoderma gangrenosum (PG). Not surprisingly, other case reports of DA simulating PG have been reported.[3] Although there are no specific histological features for DA, biopsy and histological evaluation of the edge of a wound will likely provide the ability to rule out other considerations. Likewise, additional testing to rule out other potential causes such as infection, malignancy, or autoimmune etiology should also be performed, but DA should at least be considered sooner rather than later under appropriate circumstances.

Once a diagnosis of DA is assumed, treatment can be incredibly challenging. A nonconfrontational approach and a multidisciplinary team involving mental health professionals is advised and has shown to have beneficial outcomes. [4] That being said, treatment of factitious disease is often unsuccessful.

Initially, patients can be managed with topical treatment modalities including bland emollients, antibiotics, or occlusive dressings which can not only provide diagnostic protection, and barrier restoration. If the patient is receptive, psychiatric medications such as SSRIs or antipsychotics in combination with cognitive behavioral therapy can provide significant value.

Key Points

- Dermatitis artefacta should be included in the differential diagnosis when skin disorders fail to respond to conventional therapies or when histological/clinical features are atypical.
- Patients will likely not admit or be aware of their role in the development of cutaneous manifestations.
- Dermatitis artefacta is more common in females, early adults, healthcare workers, and those with underlying psychiatric diagnoses or external stressors.
- Treatment of DA can be incredibly difficult, lengthy, and refractory and should involve a multidisciplinary approach including psychiatry/mental health.

References