Unusual wounds that are found in Leg Clubs®: pyoderma gangrenosum

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Pyoderma gangrenosum (PG) is a rare, serious and destructive inflammatory disease that causes ulceration to the skin. Its diagnosis and treatment relies on specialist knowledge of the disease. PG is often underreported and misdiagnosed (Weenig et al, 2002), as the wound can begin as a trauma wound and then progress to PG, becoming necrotic and enlarged, where it can be mistaken for infection. The wound will mostly be symmetrical in shape, often circular, with a distinctive blue or mauve border (Figure 1), and will be excruciatingly painful. PG can be found anywhere on the body, but is mostly located on the legs.

This disease is an autoimmune condition that is most often associated with other autoimmune conditions, such as Crohn's and ulcerative colitis, rheumatoid arthritis or blood cancers. However, in 50% of cases, PG can appear when there are no other apparent autoimmune disorders (National Organization for Rare Disorders, 2021).

No specific test exists to confirm a diagnosis of PG, and any diagnosis relies mainly on a nurse's expertise and clinical assessment. Upon referral to a dermatologist, the wound would be biopsied in order to exclude other causes of skin ulceration. If all are clear, PG is then suspected.

The importance of nurse education

The Lindsay Leg Club Foundation is passionate about nurse education and determined that the healing of intractable wounds and the social aspect of leg care be ensured. Early diagnosis is considered central to its treatment; unfortunately, PG is very difficult to identify and treat. Therefore, the education of Leg Club nurses is fundamentally important in identifying the problem early, so that it can be quickly treated.

The nurse can do little to help until the immune system has been suppressed. Once PG is under control, dressings become important.

Treatment

As an inflammatory disease, treatment only partly depends on topical dressings or creams. The GP or dermatologist is most likely to offer oral steroids as first-line treatment, although this may be a problem for those already on large doses of steroids for autoimmune diseases. Prednisolone is the drug of choice and is usually started at high doses (60-120 mg).

Highly potent topical corticosteroids (occasionally underneath occlusive dressings) may be sufficient to induce remission (Bennett et al, 2000). Dermovate is the strongest, and Betnovate is slightly milder.

Ciclosporin, an immunosuppressant, is an alternative medication, and several case reports and small case series have demonstrated a good clinical response to low-dose ciclosporin, with most people with PG showing clinical improvement within 3 weeks with a dose of 3-5 mg/kg/day (Reichrath et al, 2005).

Infliximab injection is generally used for Crohn's disease or ulcerative colitis, but has been shown to reduce PG. It is expensive and, therefore, may not be offered; it can also

Figure 1. The wound when first presented in January 2021

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Figure 2. The wound's progression in February 2021

Figure 3. The wound's progression in May 2021

decrease the ability to fight infection, including severe viral, bacterial, or fungal infections that may spread throughout the body (Medline Plus, 2021).

A case study

The person presented in this case study suddenly developed PG on his foot (Figure 1). This was the second time he had developed PG, which was restricting his quality of life, his work and his strength levels. He would cycle to work until PG developed on his foot, at which point it became impossible to walk. He was given prednisolone, which can cause diabetes (Hwang et al, 2014) and did not help with the muscle loss. He was also administered methotrexate. He then went on to have infleximab treatment through the hospital.

The pain was very acute, and he was given carbomazipine and paracetamol to help reduce this. Ointment was applied liberally to the wound bed, along with dressings, which were used to help with the pain by keeping the area moist. A silicone foam was applied as a second dressing, along with a cohesive bandage. The periwound was always cared for with barrier cream.

Conclusion

This wound was brought to successful closure (Figures 2, 3 and 4) by supporting the person on their journey through PG and through the cooperative efforts of the multidisciplinary team.

Figure 4. Closure was achieved in November 2021

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Because of the education provided to Lindsay Leg Club Foundation nurses and the support offered throughout the many Clubs, nurses can feel comfortable and confident in diagnosis of wounds and how to treat them successfully. CWC

Bennett ML, Jackson JM, Jorizzo JL et al. A comparison of typical and atypical forms with an emphasis on time to remission. Case review of 86 patients from two institutions. Medicine (Baltimore). 2000;79(1):37–46

Hwang JL, Weiss RE. Steroid-induced diabetes: a clinical and molecular approach to understanding and treatment. Diabetes Metab Res Rev. 2014;30(2):96–102. https://doi.org/10.1002/dmrr.2486

Medline Plus. Infliximab injection. 2021. https://medlineplus.gov/druginfo/meds/a604023.html (accessed 17 November 2021)

National Organization for Rare Disorders. Pyoderma gangrenosum. 2021. https://rarediseases.org/rare-diseases/pyoderma-gangrenosum/ (accessed 17 November 2021)

Reichrath J, Bens G, Bonowitz A, Tilgen W. Treatment recommendations for pyoderma gangrenosum: an evidence-based review of the literature based on more than 350 patients. J Am Acad Dermatol. 2005;53:273–283. https://doi.org/10.1016/j.jaad.2004.10.006

Weenig RH, Davis MD, Dahl PR, Su WP. Skin ulcers misdiagnosed as pyoderma gangrenosum. N Engl J Med. 2002;347(18):1412–1418. https://doi.org/10.1056/NEJMoa013383

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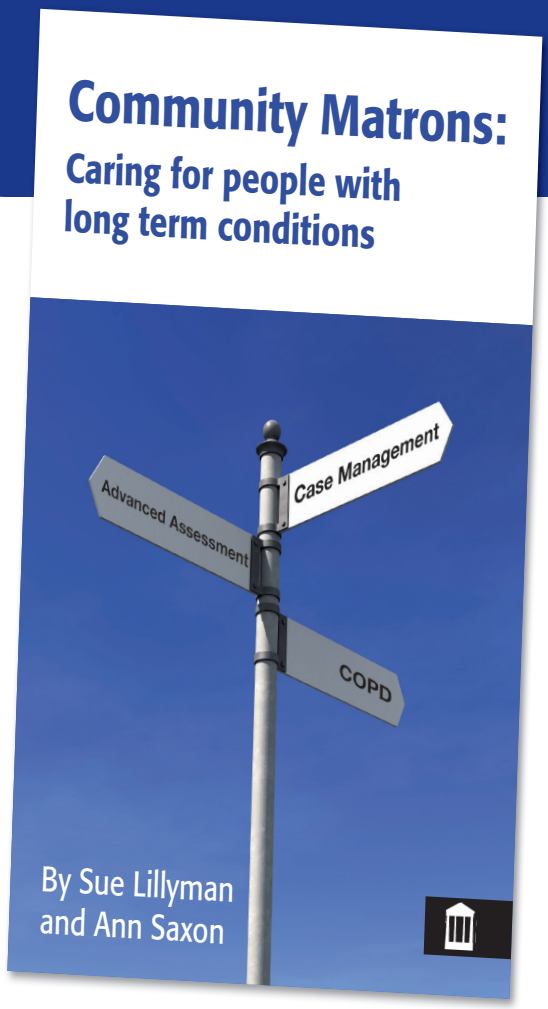

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