

#1 Bilayered Cell therapy as an alternative to steroid medications to reduce pain and promote wound healing in cases of pyoderma gangrenosum

Pyoderma gangrenosum is a disease that causes tissue to become necrotic, causing deep ulcers that usually occur on the legs. When they occur, they can lead to chronic wounds. Ulcers usually initially look like small bug bites or papules, and they progress to larger ulcers. Though the wounds rarely lead to death, they can cause pain and scarring. Though the etiology is not well understood, the disease is thought to be due to immune system dysfunction, and particularly improper functioning of neutrophils. At least half of all pyoderma gangrenosum patients also suffer from illnesses that affect their systemic function.^[1] For instance, around 2% of Crohn's disease sufferers have the condition.

Death from PG is rare, but it may occur due to an associated disease or as the result of therapy. Pain is a usual complaint of patients and may require narcotics.

Medical Care: No specific therapy is uniformly effective for patients with PG. Topical therapies include local wound care and dressings, superpotent topical corticosteroids

- Systemic therapies include corticosteroids, cyclosporine, tumor necrosis factor-alpha (TNF-alpha) inhibitors, and nicotine.
- Intravenous therapies include pulsed methylprednisolone, pulsed cyclophosphamide and intravenous immune globulin.
- Other therapy includes hyperbaric oxygen.

Surgical Care:

- Surgery should be avoided, if possible, because of the pathergic phenomenon that may occur with surgical manipulation or grafting, resulting in wound enlargement. In some patients, grafting has resulted in the development of PG at the harvest site. In the cases in which surgery is required, the best plan, if possible, is to have the patient on therapy in order to prevent pathergy.

Conclusion:

- This author is proposing that a minor surgical debridement, with application of Apligraf on the same day of debridement has shown efficacy in reducing the inflammatory process within the local wound area, including reducing the wound size, decreased pain and final resolution the ulceration to complete healing. In most instances requiring only one Apligraf application per wound.

1. Jackson JM and Callen JP. 2006. Emedicine: Pyoderma Gangrenosum. Retrieved on January 23, 2007.
2. Brooklyn T, Dunnill G, Probert C (2006). "Diagnosis and treatment of pyoderma gangrenosum". *BMJ* **333** (7560): 181-4.
3. Shankar S, Sterling JC, Rytina E (2003). "Pustular pyoderma gangrenosum". *Clin. Exp. Dermatol.* **28** (6): 600-3.
4. Langan SM, Powell FC (2005). "Vegetative pyoderma gangrenosum: a report of two new cases and a review of the literature". *Int. J. Dermatol.* **44** (8): 623-9.
5. Reichrath J, Bens G, Bonowitz A, Tilgen W (2005). "Treatment recommendations for pyoderma gangrenosum: an evidence-based review of the literature based on more than 350 patients". *J. Am. Acad. Dermatol.* **53** (2): 273-83.