

Clinical Challenges

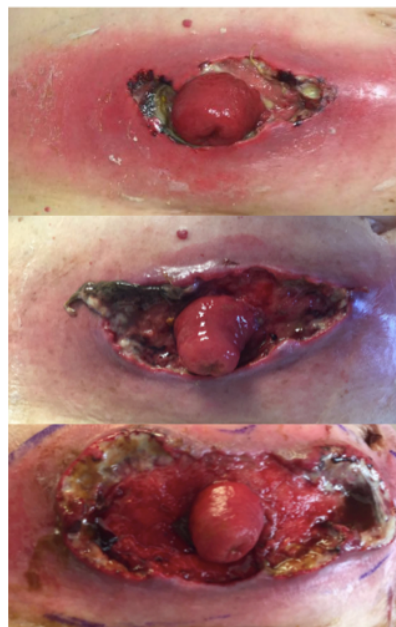
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Ostomy Complications: Parastomal Pyoderma Gangrenosum

Approximately 100,000 ostomies are performed annually and nearly 1,000,000 people live with ostomies in the U.S.¹ Occurring in more than a third of patients, skin complications are perhaps the most common of complications effecting people with ostomies. Though they also arise in patients with colostomies, skin complications most frequently effect patients with ileostomies.² Parastomal skin irritation can occur as a result of chemical or physical irritants, pre-existing skin conditions, and infection. Rarely, patients can develop parastomal ulceration. It can be difficult to delineate whether the cause of the injury is simply local trauma or infection versus the more insidious process, parastomal pyoderma gangrenosum (PPG).

A 74 year-old patient with complex perianal Crohn's disease and persistent rectovaginal fistula presented with severe parastomal ulceration two weeks following loop ileostomy performed for fecal diversion. Appearance of ulceration was consistent with parastomal pyoderma gangrenosum (PPG)—Classically the wound is punched out with violaceous borders and undermining.



Progression of parastomal pyoderma gangrenosum. A) At presentation. B) At three days. C) At one month.

This was managed conservatively at first, with local wound care, including topical steroids, and careful pouching. Initially, there was some concern for infection, both locally, at the wound, and in the pelvis in association with her severe perineal Crohn's. Therefore systemic steroids were withheld. However, within days, the wound expanded. Severe pain and an enlarging wound made pouching increasingly difficult, and at times enterostomal therapy (ET) nurses were seeing the patient twice daily to tend to the wound and ensure a seal was maintained. Because almost any amount of ostomy output resulted in leakage, the patient developed a severe fear of food and aversion to eating, resulting in the need to support her nutrition with TPN.

As soon as concern for infection had dissipated (within the first few days of admission), high dose systemic corticosteroids were started, followed by the anti-TNF therapy, infliximab. This appeared to have minimal effect on healing though progression was slowed. Steroids were continued and infliximab was re-dosed. In addition, the patient underwent intralesional corticosteroid injections, though the healing effect of this was minimal. When her ulceration

persisted at 6 weeks, she received intravenous immunoglobulin (IVIG). In the following week, whether coincidental or consequential, the inflammation and pain began to resolve, and this was accompanied by a gradual filling in of the wound with healthy granulation tissue.

As the wound healed and the seal was more easily maintained, she began a steroid taper, returned to a regular diet and was weaned off of TPN. In all, she was hospitalized for nearly three months due to persistent need for specialized care by ET nurses, and inability to tolerate wound care with oral pain medications.



A) Parastomal pyoderma gangrenosum, wound healing at 2 months. B) Careful ostomy pouching by specialized ET nurses.

Parastomal ulceration and PPG are unusual; PPG occurs in only 0.6% of patients with ostomies.³ It presents with severe pain and ulceration making pouching difficult. It is a diagnosis of exclusion, and other causes of parastomal ulcers, such as ischemia, stitch abscess, wound infection, and intestinal perforation adjacent to stoma must be ruled out. Additionally, any underlying intestinal disease or other

associated systemic diseases must be identified. More than 90% of patients with PPG have Crohn's disease, however it can also be seen in patients with ulcerative colitis, malignancy, rheumatoid arthritis and diverticulitis.^{4,5}

The primary treatment for PPG is specialized local wound care, avoiding debridement, as pathergy can contribute, exacerbating PPG.⁶ Topical, intralesional, and systemic dosing of corticosteroids, immunosuppressants and biologics can also be used. IVIG is emerging as a therapy for refractory pyoderma, and in a recent systematic review, showed partial and complete response rates of 88% and 53%, respectively.⁷ With medical therapy, resolution occurs in most patients within 3 months, though relapse is common. Surgical revision or relocation of stoma should be reserved as the last resort, since it is both invasive, and associated with almost 70% recurrence of disease.⁵

The Bottom Line

PPG is an uncommon, but devastating ostomy related complication. It is a diagnosis of exclusion, which is most commonly seen in association with inflammatory bowel disease.

Treatment of PPG requires multidisciplinary care by surgeons, gastroenterologists, dermatologists, occasionally rheumatologists, and perhaps most importantly, a specialized team of ET nurses to properly manage the wound, and minimize further trauma to the skin.

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