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Pain Reduction and Improved Healing of Peristomal Pyoderma Gangrenosum using Super Absorbent Wound Filler

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Introduction

Peristomal Pyoderma Gangrenosum (PPG) is challenging. It was identified by Brocq in 1916, but in over 9 decades, its etiology and pathophysiology remain poorly understood. It is a reactive inflammatory dermatosis and part of the spectrum of neutrophilic dermatosis. Without a clear understanding of etiology, treatment options vary widely. No individual therapy has been universally effective, Pyoderma Gangrenosum (PG) treatment involves a regimen of systemic, cutaneous and/or intra-lesional medications including corticosteroids, immunosuppressive agents, and antibiotics. PG anywhere on the body is difficult, but when around a stoma, wound and ostomy expertise are critical in achieving pain management, optimal wound healing and acceptable pouching intervals.

This case series offers an innovative use for a highly absorptive dressing, Gold Dust™. The concept was accidental. A patient replaced the alginate traditionally used for PPG with the reconstituted Gold Dust™ that he was using on his other wounds. The change was a desperate attempt to decrease pain to a tolerable level. It was surprisingly effective. The hope was that healing would not be delayed. The result was decreased pain AND improved healing. The protocol has been replicated on 5 patients. All enjoyed the same end results.

This study included six patients from 2 states and 4 different care settings. All patients were diagnosed with Crohn's and/or Ulcerative Colitis.

Patient Population

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Treatment Protocol

Prior to being entered into this study, patients had used a variety of products including Aquacel AG, Hydrofera Blue, Polymem WIC and pharmaceutical products. No one option had offered good success. All patients were eager to participate without compensation.

After gentle cleaning with a noncytotoxic product, the wounds were outlined with Brava strip paste or Eakin's to form a dam. Because of the different care settings, patients were provided with different primary layers. One patient had no primary dressing at all. Primary layers included:

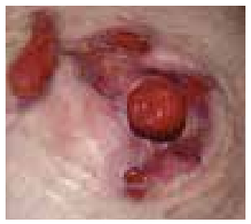
•finely crushed 10 mg Prednisone tablets
•Stimulen Powder
•Cortisone Powder
•Ostomy Powder
•No primary layer

All primary layers were sealed with a non-sting skin prep spray. The Gold Dust™ was hydrated to a fluffy consistency resembling a dry snow. With the exception of one patient, all wounds were sealed with Brava Protective Sheets. The exception was pouched with an Eakins pouch directly over the dressing. This combination allowed routine wound and ostomy dressing changes every 3-4 days for an improved quality of life. There was a cost savings to both patients and facilities. The prior combination of dressings and ostomy supplies normally resulted in more frequent changes to address leakage. The study protocol eliminated the change frequency and returned patients to their normal pouch change intervals.

Results

Patient	Initial Pain	Pain after 24 hours	Initial Measurements	Time to healing
1) JM	9	1	34mm x 28mm x 6mm	19 days
2) WD	8	0	89mm x 46mm x 5mm	42 days
3) RW	7	3	59mm x 47mm x 7mm	46 days
4) FA	10	4	68mm x 70mm x10mm	80 days **
5) JF	9	1	46mm x 31mm x 5mm	37 days
6) TP	10	3	59mm x 38mm x 6mm	51 days

** **Patient #4** experienced a setback secondary to pneumonia which stalled his healing progress. Once his respiratory status was corrected, the healing resumed.



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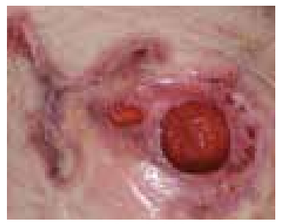

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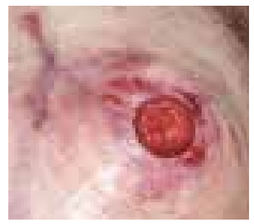

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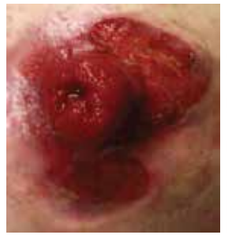

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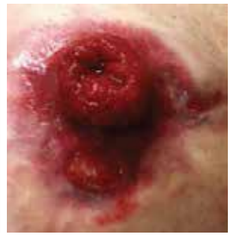

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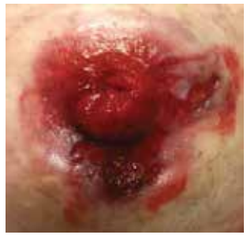

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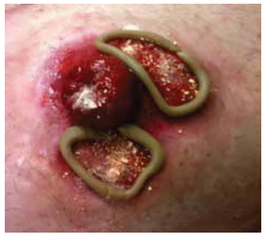

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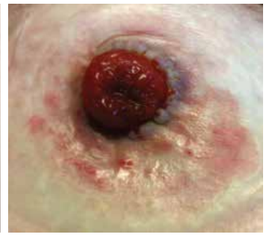

Photo 5 (08/27/12)

Conclusion

This study illustrates the potential for improved quality of life, pain management, and options for improved healing with the most challenging of situations. Pyoderma Gangrenosum, and especially peristomal Pyoderma Gangrenosum is devastating and debilitating. Although this is a small study, it does show significant and consistent results. Admittedly, there was variation with the primary layers used, but, there was NO variation in the end result. Based on the fact that Gold Dust™ was the consistent variable for all patients, it is the belief of this clinician that the decreased pain and improved healing was directly tied to Gold Dust™.

Further research is clearly warranted and may be best conducted in a larger, comparative study or formal laboratory setting. These future studies may find a correlation between the impaired phagocytosis by neutrophils commonly seen with pyoderma or an explanation tied to the pathergy that is common with pyoderma and the soothing simplicity of an atraumatic dressing.

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Product Used

* Gold Dust™

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