



Healing Peristomal Skin Complications and Stoma Erosion Using a Novel Transforming Powder Dressing: A Case Study

Sona Raphi, RN, BSN, CWON | Dallas VA Medical Center

INTRODUCTION

Challenge:

- Abdominal ostomies are common, with an estimated 130,000 new ostomies performed annually in the US.¹
- Peristomal skin complications are the most common skin problems seen after ostomy surgery.¹
- Peristomal skin complications can:
 - Increase length of stay
 - Increase rates of readmission
 - Decrease quality of life
 - Increase cost of care

CASE BACKGROUND

Patient Demographics:

- 57-year-old male with a urostomy and extensive comorbidities:
 - Metastatic bladder leiomyosarcoma
 - Cardiovascular disease
 - Peripheral vascular disease
 - Obstructive sleep apnea
 - Gastroesophageal reflux disease
 - Chemotherapy

- Developed severe peristomal skin complications despite standard of care (SOC) treatments

Initial Treatment

- June – August: Binder-related irritation with crusting evolved into a circumferential erosive wound from 3 to 12 o'clock around the stoma while using stoma powder
- By October 2024: Lesion had advanced to involve stoma erosion despite prior SOC measures

TPD Treatment

- October 4: TPD initiated in place of stoma paste
- Applied to patient at home twice a week for about two months
- On chemotherapy during treatment

MATERIALS

TPD is a transforming powder dressing comprised primarily of two biocompatible polymers (similar to those used in contact lenses). Upon hydration with saline, TPD granules aggregate to form a moist, oxygen-permeable barrier that covers and protects the wound from contamination, while facilitating the flow of excess exudate through vapor transportation. Once applied, TPD may be left in place for up to 30 days and be covered with simple, non-occlusive secondary dressings in areas of high friction or exudation. Powder is added (“topped off”) as needed without requiring primary dressing changes. As the wound heals, TPD dries and flakes off.

RESULTS

- December 9: Photographic follow-up demonstrated complete epithelialization with healthy peristomal skin 66 days post initial application
- Wound healed in 66 days with 2x weekly top offs (18 total in 9 weeks) with no adverse events and no recurrence at 4-month evaluation visit
- No additional quantitative measurements were provided during treatment, but visual progression indicated rapid resolution

SOC TREATMENT | ~5 Months



TPD TREATMENT | ~2 Months



CONCLUSION

In this high-risk patient with with peristomal skin complications and stomal erosion, a transforming powder dressing facilitated durable healing without pain or supplementary clinical care. TPD should be considered for effectively managing ostomy complications.

REFERENCES & ACKNOWLEDGEMENTS

1. D'Abrosio F, Pappalardo C, Scardigno A et al. Peristomal Skin Complications in Ileostomy and Colostomy Patients: What We Need to Know from a Public Health Perspective. Int J Environ Res Public Health. 2022 Dec 21;20(1);79. | **Acknowledgements:** This poster is created in collaboration with Altrazeal Life Sciences Inc. The author treated the patient independently without any financial remuneration. For application instructions and risks of this device please refer to Altrazeal Instructions for Use. | EDU-1155