

Introduction

Peristomal complications can significantly impair quality of life, leading to skin breakdown, leakage, infection, odor, pain, and discomfort. Timely and effective wound management is essential to reduce morbidity and improve patient outcomes.¹

The objective of this case series was to evaluate the effectiveness of a chitosan fiber* dressing in managing peristomal wound complications of various origins and wounds at other sites.

Chitosan is a bioactive polymer that supports the natural wound healing process through a unique combination of exudate management, bioburden control, hemostasis, non-cytotoxicity, and the maintenance of normal fibroblast function.^{2,3,4}

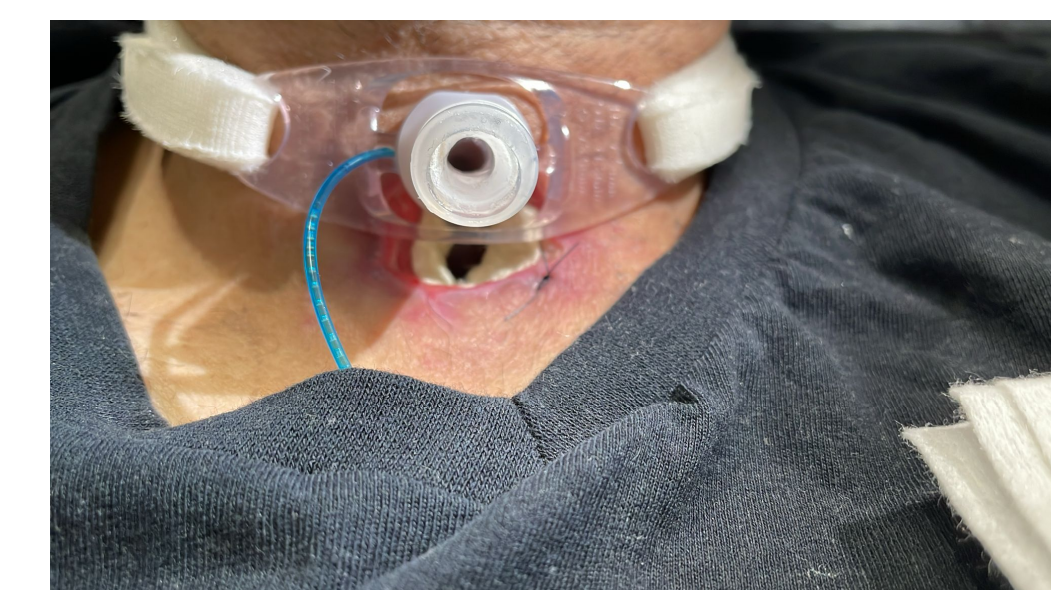
Case 1

- 46 years old
- Tracheostomy s/p anoxic brain injury



October 23, 2025

Tracheostomy site infection was followed by dehiscence of the insertion wound that progressively deteriorated.



October 26, 2025

The patient presented with a substantial amount of purulent, foul-smelling drainage.



November 9, 2025

Chitosan dressing therapy was initiated, leading to prompt clinical improvement and wound closure.

Case 2

- 12 years old
- Tracheostomy s/p respiratory deterioration



December 12, 2025

The tracheostomy opening gradually widened with a large amount of secretion until the tracheostomy was removed and reinserted.



January 6, 2026

After wound cleansing, chitosan dressing was applied into the wound cavity.

A reduction in wound size and secretion volume was observed.

Case 3

- 29 years old
- Colostomy s/p Crohn's disease since 2014



November 24, 2025

Mucocutaneous separation started two months before the hospitalization due to anorectal fistula.



December 12, 2025

Chitosan dressing therapy was initiated, leading to prompt clinical improvement. The dressing was inserted to fill the gap under the stoma base and changed every 3 days. Mucocutaneous separation resolved completely within three weeks of treatment.

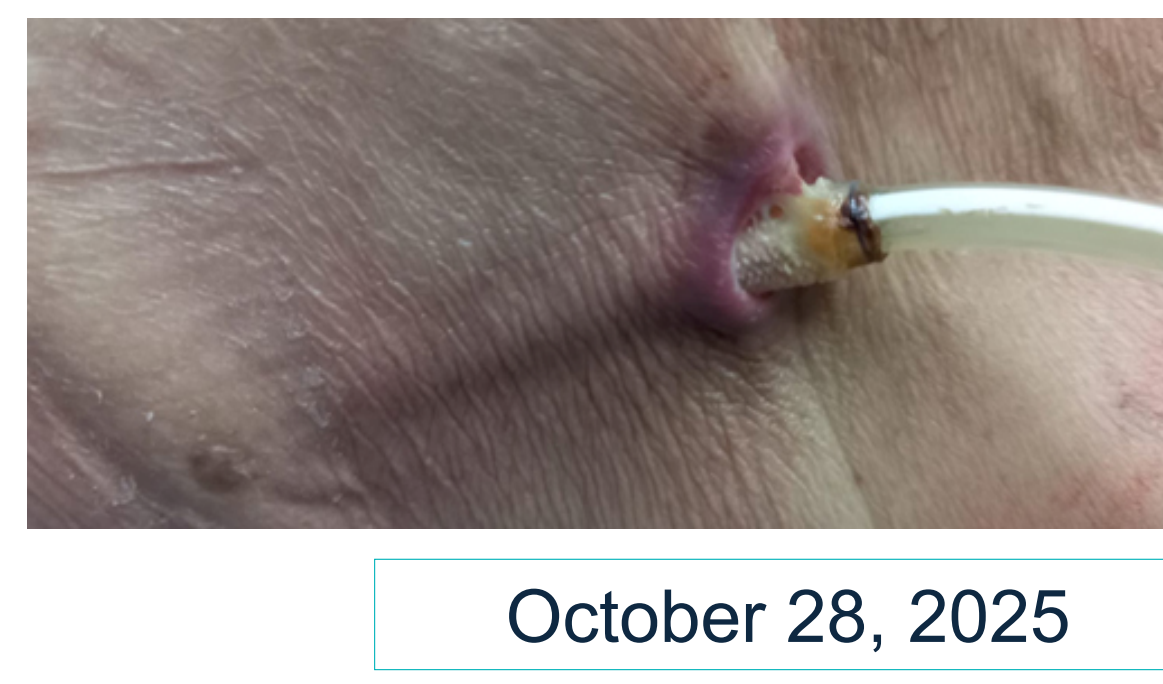
Case 4

- 71 years old
- Pleural drain s/p cancer



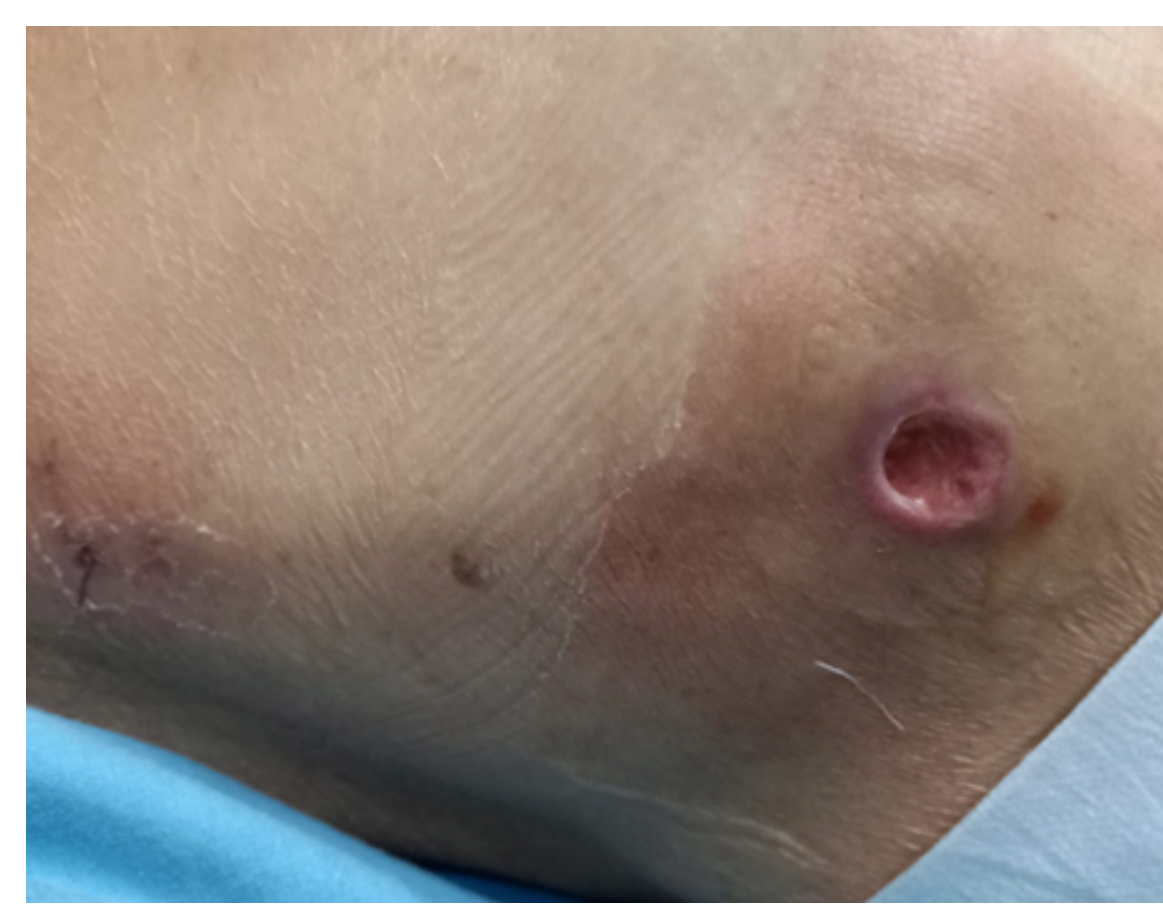
October 26, 2025

The drain exit site developed erythema and discharge, raising concern for dislodgement.



October 28, 2025

After cleansing, chitosan fiber dressing was applied around the drain to protect peri-wound skin and manage exudate.



October 30, 2025

Marked improvement was observed within 4 days, with resolution of erythema and a stable wound site.

Results

All patients demonstrated marked improvement in wound healing parameters, including cleaner wound beds, reduced leakage, decreased pain and discomfort, and formation of granulation tissue leading to complete closure of all four wounds within 6-week period.

Discussion

These cases support the use of chitosan dressings as an effective primary contact layer for managing a range of peristomal and other wound complications.

Positive outcomes were observed across diverse wound types and patient profiles, including those with significant comorbidities. The findings suggest that chitosan-based therapy may offer a beneficial treatment approach for complex peristomal wounds in clinical practice.

References

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Chitosan fiber dressing: MaxioCel®, Advamedica Inc.*

Disclosure: Chausha Weitman Cernica, M.A., R.N. has no financial relationship with Advamedica Inc.

Product was used as part of standard clinical practice.