

Complex Fistula Care: An Innovative Approach To The Treatment Of A Large Abdominal Surgical Wound With Multiple Enterocutaneous Fistulas Managed In The Outpatient Setting Using Transforming Powder Dressing

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INTRODUCTION

Post-operative complications for colorectal surgery patients are frequent, occurring in 1 out of every 3 patients.¹ Wound complications such as infections, dehiscence, formation of enteroatmospheric fistulas (EAF) and hematomas occur in up to 13% of patients, posing treatment challenges and resulting in prolonged hospital stays, increased postoperative mortality, readmissions, pain and decreased quality of life (QoL).¹ Readmission of patients who develop EAF is reported between 20% and 51% at 90 days in patients who survived the index admission.² The use of negative pressure wound therapy (NPWT) in open abdomens and EAF is controversial, requiring alternate solutions.³

METHODOLOGY & MATERIALS

A 40-y/o male presented with an acute obstruction of the sigmoid colon resulting in colon resection, Hartman's procedure and colostomy. Post-operative complications included compartment syndrome, colostomy necrosis, large abdominal wound (25 x 23 x 2.4 cm) and 13 EAF formations with projectile enteric content. NPWT was discontinued when fistulas developed. A larger fistula pouch was implemented to contain the enteric content and transforming powder dressing (TPD) was incorporated around the fistula for wound care. TPD is an extended wear dressing that forms a moist, oxygen-permeable, non-occlusive barrier to help cover and protect the wound.

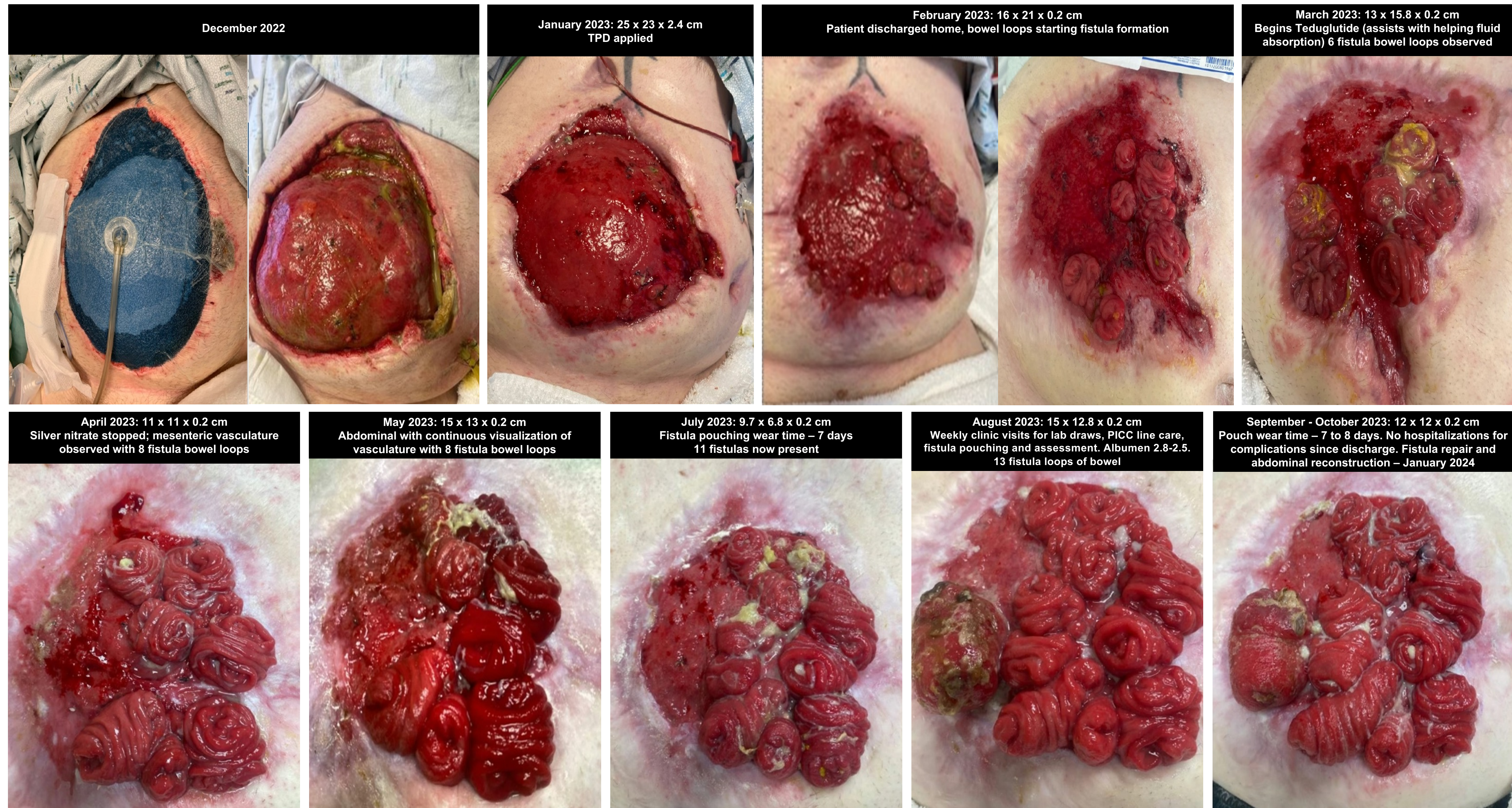
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RESULTS

Patient was discharged home on daily intravenous fluid rehydration, and followed up in clinic weekly for fistula pouching, lab draws, and PICC line care. Pouch wear time was 7-8 days and TPD was applied/topped off at each pouch change. TPD facilitated abdominal wound healing providing an intact surface to pouch, and improved pouch wear time. He has had no wound related complications and was managed in the outpatient setting using TPD on wounds surrounding the fistulas without readmission for 42 weeks (9.5 months) despite additional fistula generation. He reported less pain with TPD and improved QoL with the new pouching system.



DISCUSSION

Despite the complex nature of the case, the patient could be managed in the outpatient setting without wound related complications or readmissions through a well-executed discharge plan. TPD enabled pouching with increased wear time and improved wound healing was noted. The patient reported improved QoL and was able to resume his activities of daily living and return to work.