



Novel Technique to Overcome Challenges Associated With Management of Difficult Perineal Pediatric Wounds Using a Transforming Powder Dressing: A Case Series

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INTRODUCTION

On average, 3.9 million pediatric surgeries are performed annually in the USA.¹ Five percent of surgical wounds develop infections or other wound complications, resulting in poor wound healing, and increased pain, hospital stay and treatment costs.² Postoperative care, including adequate wound management, is critical to ensuring successful outcomes.³

METHODOLOGY

This pediatric case series involves three patients with difficult-to-dress perineal wounds with post-operative complications. Ages ranged from five months to 18 years with diverse wound types including a vulvar tumor, perianal fistula-in-ano and pilonidal cyst. All wounds were treated with a Transforming Powder Dressing (TPD*), an extended wear (up to 30 days) dressing, made from polymers granules that transform upon hydration to form a moist matrix that covers the wound.

We hypothesized that the addition of TPD would facilitate wound closure and reduce primary dressing changes and its powder form would facilitate ease of application in these difficult to dress areas.

DISCUSSION

All wounds healed with less than expected healing times and reduced dressing change frequency, demonstrating the effectiveness of TPD in treating these difficult-to-dress perineal pediatric wounds.

REFERENCES & ACKNOWLEDGEMENTS

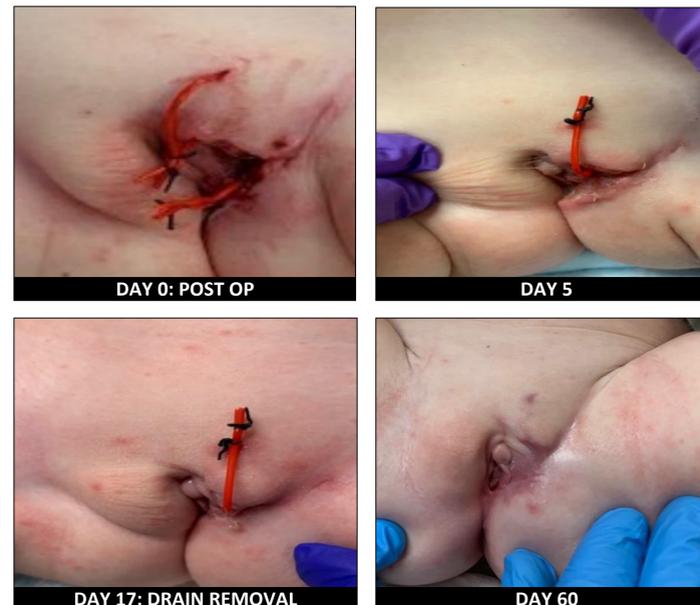
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RESULTS

VULVAR TUMOR

- 14-month-old female with rapidly growing prepubertal tumor, s/p tumor excision and reconstruction with rhomboid rotational flap
- Post Op Day 5: 3.8 x 3.2 cm wound with undermining from c/b structure line disruption
- Patient to OR for placement of two silastic bands to allow drainage followed by TPD application
- TPD topped off 2x in the 1st week and then 1x every one to two weeks
- Complete epithelialization in 8 weeks**
- Six primary TPD changes over 60 days** versus 60-120 (1-2x daily) with conventional dressings



PERIANAL FISTULA-IN-ANO

- 5-month-old male with perianal abscess
- Initial treatment: I&D ad antibiotics at 8-wks-old; c/b recurrent infections drained spontaneously through a persistent tract over next 3 months
- Taken to surgery with fistula-in-ano for fistulotomy
- TPD applied post-fistulotomy and at Day 6
- Full wound closure within three weeks**
- Two primary dressing changes** versus 21-42 (1-2x daily) with conventional dressings over three-week treatment period



PILONIDAL CYST:

- 18-year-old female with three distinct sinus tracts
- 6 x 2 x 2 cm wound post surgical debridement
- Applied TPD to control pain first week post-op; contact layer and gauze; rinsed on Day 6
- Conventional dressing thereafter
- Full closure within eight weeks**
- One TPD application during week 1 versus 14 with conventional dressing changes (2x daily)**
- Marked granulation tissue after Week 1** after which conventional dressings used



*Altrazael® Transforming Powder Dressing