**INTRODUCTION**

- Neonatal wound care often presents unique challenges, especially for those born under 26 weeks of gestational age or under 800 grams, often referred to as “micro-preemies.”
- In the United States approximately 18,000 to 19,000 micro-preemies are born annually, representing 0.46% of all live births (McGarrah, 2015).
- Due to risks of absorption and potential toxic overdose, wound care products containing iodine, silver and calcium must be used with caution.

**CASE**

- BB was born at 24 weeks. He had an ileal perforation at 9 days of life, leading to the creation of an ileostomy and mucous fistula. At 38 days of life he developed a second perforation.
- The surgical team was unable to close his abdomen and therefore it was left open with a silo (clear sheath of silicone that protects the exposed intestines). After 11 days, with the silo leaking, he was becoming septic.
- The surgical team requested an alternative treatment plan to allow the bowel to heal over by secondary intention.
- The Enterostomal Therapy Nurse (ET) had previously cleared the use of gentian violet / methylene blue polyvinyl alcohol (GV/MB PVA) antibacterial foam for this population with the neonatal pharmacists. The foam was deemed appropriate because it avoids depositing chemicals onto the skin, limiting the risk of absorption.
- The ET suggested the application of the GV/MB PVA foam over the faeces. 1. The bowel was first covered in a hydrogel to keep the area moist, then the dressing was cut to fit and applied over the fascia. A tracer was provided so that other care providers would have a guide.
- 2. An ostomy protective sheet was applied to secure the dressing, ensuring that the skin between the wound and stoma was covered.
- 3. The dressing was easily applied to the abdomen in three pieces, proximal, distal and midline to the wound, as well as added protection at base of the stoma.
- 4. An ostomy ring was applied to protect the peristomal skin.
- 5. Due to the changing size of the stoma, at times a pediatric pouch could be applied, and at times the stoma was so large that an adult fistula pouch was applied.
- 6. We carefully ensured that the sides of the pouch were secure to prevent stool from leaking into the wound.
- 7. A pediatric ostomy wafer was applied to protect the skin around the mucus fistula from leaks from the wound or from the re-feeding.
- 8. A foam dressing was applied over the mucous fistula to absorb any exudate from the site.
- 9. The dressing was covered with rolled gauze for added support to the bowel.

**RESULTS**

- The GV/MB PVA dressing and pouch were changed every 3 days. No leaks were noted.
- Within seven days the exposed bowel was covered with granulation tissue and there was advancing epithelium.
- Over the following weeks the wound size continued to decrease. This final photo was 1 month into the treatment plan.

**CONCLUSION**

This case describes the successful use of a GV/MB PVA foam for a micro-preemie's open abdominal wound. Each patient will present with unique challenges and dressing selections should always be tailored to fit the patient’s needs.

**REFERENCES**


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