Use of bacteriostatic foam composed of polyvinyl alcohol (PVA) with Methylene Blue and Gentian Violet (pigment-complexed PVA sponge) to decrease colony count in large infected peri-anal wound

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Introduction

Crohn's Disease: a chronic inflammatory disease of the gastrointestinal tract. Most people experience periods when they have flare ups while others experience severe exacerbations such fissures, abscesses, and fistulas in the anal canal.

Clinical Presentation

This case describes a 32 year old male who has severe systemic Crohn's Disease. After a total abdominal colectomy and ileostomy in 2006, he remained relatively stable. 2008 he was admitted urgently to surgery with severe pelvic and perianal abscesses and fistulas. A complete proctectomy was performed leaving an open infected wound in excess of 15 cm width and 11 cm deep. X-ray demonstrated multiple fistula tracts anterior and posterior wrapping around the tip of the coccyx. Wound culture grew MRSA.

Methodology

Bacteriostatic foam composed of polyvinyl alcohol (PVA) with Methylene Blue and Gentian Violet (pigment-complexed PVA sponge) was inserted deep into the wound and against the pelvic wall of the cavity during twice weekly dressing changes under anesthesia. This provided broad-spectrum bacteriostatic treatment and protected the extremely friable internal tissue. The wound was secured with negative pressure dressings.

Results

At 12 weeks the wound was beefy red with tissue growth as well as decreased colony count preparing the resident for massive surgical flap procedure to close the wound. During the twelve weeks there was no acute or systemic infection. Tissue granulation occurred transversely. Depth decreased to 10 cm.

Conclusion

The use of bacteriostatic PC-PVA sponge protected the peri-anal vault friable tissue and decreased colony count of bacterial organisms.



Polyvinyl Alcohol (PVA) with Methylene Blue and Gentian Violet (two organic pigments – complexed)

Features of Dressing Material

- Extremely Hydrophilic
- 100% lint and fiber free
- Biocompatible
- Soft and atraumatic for patient use
- Can be compressed to 1/10th size for easy insertion
- Durable and long-lasting
- Controlled pore size range
- Can be cut or cast to any shape or size
- Highly resistant to chemicals
- Provides a delivery vehicle for drugs/antibiotics







Open perineal wound following complete proctectomy, measures $10 \times 15 \times 11$. Pictures show removal of PVA from surgical wound demonstrating release of organic pigments. Note friable clean beefy red tissue.









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