A Pilot Study
is A PVA (polyvinyl alcohol) foam impregnated with DM, Dementia, CAD, PVD, HTN, COPD, Jeanne Alvarez, MSN, FNP, CWS

...pain significantly within the first few days of therapy, probably related to the binding of the endotoxins...improved healing rates for the more serious skin tear categories. When...and the three tears that required 21-29 days to heal were one category 2 > 25%, one category 2 < 25%, and one category 3; these wounds measured 2.42cm², 5.0cm², and 13.5cm², respectively. These...the surface...tissue loss:...tissue loss:...an allergic reaction to this product.

VI. Discussion
This study showed that the use of a PVA Foam Dressing Impregnated with Methylene Blue and Gentian Violet on this skin tear and within twenty-four hours, the patient reported no further pain at the skin tear site. This wound closed in 35 days using this wound treatment protocol for skin tears. This dressing material also controlled infection, and the patient did not require oral antibiotics. This observation supports previous findings that suggest this wound dressing is an effective antimicrobial agent for many organisms. This PVA Foam Dressing Impregnated with Methylene Blue and Gentian Violet can be used on infected wounds, eliminating the need for oral antibiotics in many cases. The use of topical treatments for infected wounds will help in the reduction of the overuse of systemic antibiotics.

The Use of A PVA Foam Dressing Impregnated with Methylene Blue and Gentian Violet on Skin Tears: A Pilot Study

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Abstract
There are more than 1.5 million skin tears reported on institutionalized Americans and the numbers continue to rise as the baby boomers get older. Skin tears disrupt the skin integrity, increase the risk of infection, and cause distress to those involved. This pilot study examined various skin tears occurring at two medical facilities over a 6-week period. The study evaluated the effectiveness of a PVA Foam Dressing Impregnated with Methylene Blue and Gentian Violet (Hydrofera Blue™) compared to the treatment of skin tears. The focus was on 1) time to closure, 2) pain levels, and 3) incidence of infection. The study showed that this wound dressing is a highly effective dressing material for skin tears of all categories. Skin tears of more serious categories showed a significant improvement in healing rates. There was a noted decrease in reported pain within 24 hours, and there were no reported infections.

I. Introduction
A skin tear is defined as a traumatic wound resulting in the separation of the dermis from the epidermis at the basement membrane level. In 1999, it was estimated that there were approximately 1.5 million skin tears of elderly patients in U.S. nursing homes. With the noted increase in the elderly population in the U.S., one can extrapolate that this problem will increase significantly as the “baby boomer generation” ages. By the year 2030, 8.1 million Americans will be categorized as the “old-old” – those greater than 85 – and this will cut our fastest growing segment of the population into half of its present size.

II. Purpose
The purpose of this study was to determine the effectiveness of a PVA foam wound dressing impregnated with methylene blue and gentian violet, in the treatment of various skin tears. The focus was on 1) time to closure, 2) pain levels, and 3) incidence of infection.

III. Methods
Data was obtained from 100-bed long-term care facility and from other patients who reported to an outpatient family practice office for evaluation of skin tears. This study took place over a six-week period in February/March 2004. An examination form was provided on which the examiner would document the date, location, skin tear category, wound measurements, cognitive ability, pain scale score, and any signs and symptoms of infection.

IV. Procedure
Attending caregivers first identified patients having one or more skin tears. These patients’ skin tears were then classified into the appropriate Payne-Martin skin tear category that best described each tear. The nurses then cleansed the wounds with soap and water, irrigated the wounds and skin flaps with saline, and approximated the wound margins if necessary. Measurements of overall skin tear sizes and gap sizes were obtained and initial photos were taken. Using this PVA Foam Wound Dressing Impregnated with Methylene Blue and Gentian Violet (Hydrofera Blue™), the dressing was cut to fit over the wound bed and wound edges. The dressing was moistened with normal saline and the excess saline was squeezed out. The moistened dressing material was then placed over the wound and the entire wound site was covered with a film dressing (Tegaderm Film Dressing™). The dressings were removed after 24 hours for the first assessment, photos were taken, and dressings were reapplied using the same protocol. The dressings were then changed every three days until the study was completed. This protocol was implemented to follow the course of healing for these wounds.

V. Results
There were a total of eight skin tears on five patients reported during the study. The patients’ mean age was 75 years with a range from 61-92 years. All patients exhibited significant co-morbidities such as Dementia, Chronic Obstructive Pulmonary Disease, Diabetes, Coronary Artery Disease, Hypertension, Hyperlipidemia, Congestive Heart Failure, Anemia, Depression, Anxiety, Multiple Sclerosis, Polymyalgia Rheumatica, Glaucoma, Hypothyroidism, Hypertension or Peripheral Vascular Disease. These patients reported no pain at the site. Four of the seven skin tears healed in ten days or less. Three skin tears that required 21-29 days to heal were one category 2 > 25%, one category 2 < 25%, and one category 3; these wounds measured 2.42cm², 5.0cm², and 13.5cm², respectively. These patients were found to be on multiple medications, some of which are known to inhibit wound healing. All patients were noted to have thin and fragile skin. The mean average for closure of the skin tears was fourteen days with a range from four to twenty-eight days. Three of the five patients complained of significant pain in the skin tear sites on day one, with the reported pain ranging from 7-10 on a 0 (no pain) - 10 (severe pain) scale. Within twenty-four hours of the application of Hydrofera Blue™, all patients noted decrease in pain within 24 hours of dressing placement and there was a noted decrease in reported wound pain.

VI. Conclusion
To obtain a copy of this study in its entirety, please contact Hydrofera.