**Primary Closure of Wounds as Augmented by DermaClose™ RC: A Retrospective Case Study**

**Alexander R. Peateman, DPM, Assistant Professor and Chair Department of Medicine, California State University at San Marcos Meridith University, Rancho Cucamonga, CA, and Kirk Larkin, Pediatris Medical Student IV**

**Introduction:**

An estimated 16% of patients with diabetes will develop a lower extremity ulcer during the course of their disease (1). In addition, foot ulceration is the principal etiologic factor in the development of diabetic foot ulcers (2). This is based on a number of factors including the: (i) increased prevalence of diabetes in the US and Europe; (ii) the increasing incidence of diabetes in these countries; (iii) persons with diabetes have an increased risk of developing an infection of the foot and ankle; and (iv) an aging population. The goal of this project is to demonstrate the use of positive-pressure wound therapy as a tool to improve outcomes of patients with diabetic foot ulcers.

**Design/Method:**

Six patients who had the DermaClose™ RC system applied to critical primary closure of postoperative wounds were included retrospectively. Past medical history, age, sex, location of the wound, pre and post operative wound size, and duration of application of the DermaClose™ system were recorded for each patient. The wound area pre and post DermaClose™ application was calculated for each patient and with the total percent of wound area reduction.

**Results:**

In all six patients, the post operative wound was closed using delayed primary closure. These were all reported or observed cases of defbrination. All of the six patients had a successful outcome with no complications related to the use of the DermaClose™ system. In all cases, the wound area reduction was greater than 90%.

**References:**


**Conclusion:**

Closure of a wound following surgical debridement and/or manipulation typically poses a problem for the internal closure. However, the DermaClose™ RC system has been shown to facilitate accurate closure of wounds that would otherwise either evert or be grafting leading to secondary debridement. The technique used with the DermaClose™ system is the application of an external continuous negative-pressure wound therapy unit. This is an easy to use technique that allows for the closure of wounds that would otherwise have required greater effort or time. The use of the DermaClose™ RC system allows for the facilitation of wound closure that would otherwise be impossible. In conclusion, we found that the DermaClose™ RC system allowed for the closure of wounds that would otherwise have required greater effort or time.