The Use of 2.5% Sodium Hyaluronate Wound Gel to Promote Wound Healing for Patients with Diabetic Foot Ulcers (DFUs) and Lower Leg Ulcers (LLUs) in Community Settings by a Certified Wound Ostomy Continence Nurse (CWOCN)

Marine Chan, MSN, BSN, RN, IIWCC, GNC(C), CWOCN

Background

- Reducing health care costs has been acknowledged as a global issue.
- “Every 30 seconds a lower limb is lost due to diabetes somewhere in the world”.
- 50% patients with leg ulcers had a leg ulcer history 5 to 10 years; 30% > 10 years.
- Treatment costs increase when the duration of treatment, and product use increase.
- Early identification of difficult-to-heal wounds and targeted use of advanced wound care products should be considered whenever possible (Vowden 2011).

2.5% Sodium Hyaluronate Wound Gel

Has been used for management of lower leg ulcers, pressure ulcers, diabetic foot ulcers, and surgical wounds (Reece & Quiring, 2002; Woo, et al 2005).

Method (Study period: May – November 2016)

This prospective, self-controlled non-randomized clinical case series study was conducted to evaluate the efficacy of 2.5% sodium hyaluronate wound gel for community patients with DFUs or LLUs in out-patient clinic settings by assessing:
- The healing rates by comparing the changes of wound size and time to heal
- The incidence of complications

Inclusive Criteria

- Wounds that failed to reduce size by 30% after treatment for 4 weeks
- DFU: of wound size <10 cm²; have been off-loaded with most appropriate offload device, Total Contact Cast (TCC), Poor Man TCC, iTCC, etc.
- LLUs of wound size <100 cm²
- Patient with LLUs that have been on 20 mmHg or more compression therapy

Study Protocol (Weekly wound gel treatment till wound closed or a max. 27 weeks)

- Sharp or mechanical wound debridment by the Principal Investigator, a CWOCN
- Applied wound gel liberally to wound base and margins
- Maintained moisture/bacterial balance with bacterial binding dressings to
- Continued with appropriate offload (DFUs) or compression (LLUs)

Results: 33 patients recruited; 20 patients completed the study (10 DFU (50%); 10 LLUs (50%):

- 8 patients (40%): wounds closed
- 9 patients (45%): wounds improved
- 3 patients (15%): wound status undetermined
- Mean Home Care Nurse treatment days before PI treatment: 195 days
- Mean PI treatment days before wound gel treatment: 193 days
- Mean wound gel weekly applications 15 weeks (105 days)

Implications:

1. The results supported the use of the wound gel to supplement standard wound treatment for patients with DFUs or LLUs.
2. To provide stronger evidence, further studies with a larger sampling size with follow up assessments in 3, 6 and 12 months to evaluate the recurrence rates is recommended.

References:


Disclaimer

- This study was unfunded. The vendor provided the 2.5% sodium hyaluronate wound gel for 20 selected patients for product evaluation.
- The trade name of this 2.5% sodium hyaluronate wound gel is GlycoBioSciences Inc. IPM™ Wound Gel Bio.