

Title PDF (to select for download), suggestion:

Case study diabetic foot 1 - over 80% wound size reduction in 5 weeks

PATIENT INTRODUCTION

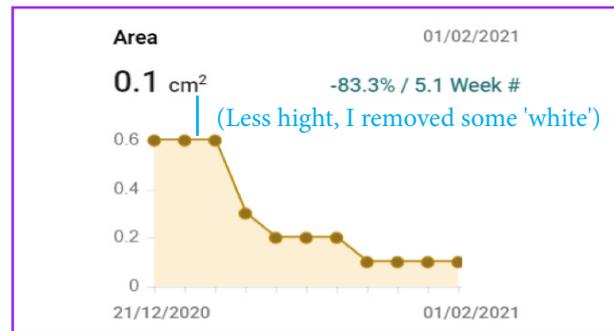
A 92 year old female patient with a pressure ulcer since 15/08/2020, was treated with the Standard of care protocol. She is a Type 2 Diabetic with Venous insufficiency. Ambulant compression therapy was applied which caused pressure on the top part of her foot. This caused a pressure ulcer to form. She was seen at the ECW clinic since 26/10/2020. PLASOMA Cold plasma treatment started on 17/12/2020.

FREQUENCY & RESULTS

- 6 weeks of PLASOMA cold plasma treatments (10 x, 2 x a week)
- **> 80%** wound size reduction
- **improved** wound tissue in the wound (fact, jargon...)



Wound size in cm² at the start



Wound size reduction after 5 weeks of treatment



Wound at the start of PLASOMA cold plasma treatment



Wound after 5 weeks of treatment

PATIENT PRESENTATION AND HISTORY

Vascular	Venous insufficiency resulting in poor circulation to the lower extremities.
Infection	Colonization of microorganisms on the wound bed, but no clinical signs of a superficial or deep infection
Peripheral	The patient has autonomic neuropathy causing decreased sensation to the lower extremity. Therefore she did not respond to the pressure caused by the ACT stocking which caused the ulceration.

at least 2 'results': wound size reduction & tissue result, granulate etc. Maybe in time bacterial load reduction or other high-light

TIMES MODEL - PROGRESS NOTES CLINICAL VISITS (DATE ENGLISH: 2021/01/04)

Aspect of the wound	14/12/2020	04/02/2021
Tissue	Size: 0.6cm ²	Size: 0.6cm ²
	Colour: 20% yellow and 80% red	Colour: 20% yellow and 80% red
	Location: Dorsal part of right foot over the tibialis anterior	Location: Dorsal part of right foot over the tibialis anterior
	Presence of yellow slough	Presence of yellow slough
Infection/ inflammation	Clinical signs of infection: No infection, but critically colonized.	Clinical signs of infection: No infection, but critically colonized.
	1) Primary: Redness around the wound edge and peri-wound skin	1) Primary: Redness around the wound edge and peri-wound skin
	2) Secondary: No purulent discharge.	2) Secondary: No purulent discharge.
Moisture	Minimal moisture.	Minimal moisture.
Edge	Frail skin, new epithelial tissue present.	Frail skin, new epithelial tissue present.

CLASSIFICATION OF THE WOUND

Texas scale Classification: 1A Superficial ulcer without tendon, capsule, or bone involvement. No infection or ischemia

PATIENT CARE PLAN

The wound care policy was followed as per the standard of care, additionally, cold plasma treatment was initiated.

- Soak the wound in a Polyhexanide and Betaine Solution. Gently remove any slough or debris from the wound bed using gauze.
- Cold Plasma therapy was introduced on the 17th of December 2020. Apply Cold Plasma therapy as per user instruction manual. 2-minute therapy. Remove the Plasma pad and the electrode and discard.
- Dress the wound with an Enzymatic alginate gel and cover with a Silicone adhesive silver impregnated foam dressing.
- Wear a pressure stocking continuously
- Dressing changes twice a week at the wound clinic.

EVALUATION OF PATIENT CARE PLAN

On the 17 th of December cold plasma treatment was started twice a week during dressing changes. Four weeks later on the 18th of January 2021, the wound was measured at 2 x 2mm and 100% red. almost completely healed. There were visible reductions in bacterial load evidenced by the lack of yellow slough, less inflammation and new granulation tissue. On the 2nd of February, the wound size was less than 0.1cm² . Therefore, the wound size decreased by more than 80%

Plasoma device: The noise from the machine was not hindering to the patient. The noise also did not change frequency during the three cycles. The sticker did not hurt the patient on removal or cause a reaction. The patient did not experience any adverse reactions caused by cold plasma or the cold plasma device during any of the treatments.

CONCLUSION

For the purpose of this case study, the only variable introduced into the patient care plan was Cold Plasma Therapy. From the initiation of treatment to having almost full closure took 6 weeks. After two weeks, there was more than 60% reduction in the wound size and the wound bed was 100% red, with less exudate and new epithelial tissue formation. This indicates that the treatment regimen was facilitating wound healing.