The Use of Silver-Oxynitrate Wound Dressings in the Treatment of Chronic Wounds: Preliminary Findings

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Introduction

- **Silver-impregnated dressings** are frequently used for the **management of chronic wounds** in order to control infection and promote wound healing[1].
- Silver-oxynitrate is a novel silver compound **with higher oxidation states**, showing **enhanced *in vitro* antimicrobial and anti-biofilm capacities** over conventional silver compounds[2].
- Exsalt® wound dressings could be of further benefit as they **eradicate biofilms at lower silver concentrations** than other silver compounds[3].

Objective

- **Pilot study** to **clinically** evaluate the **effectiveness** of silver-oxynitrate i.e. **Exsalt® wound dressings** in difficult to manage **chronic wounds** of various etiologies within the Calgary Zone of Alberta Health Services.

Methods

- **Study Population:** Target of 25 patients with a chronic wound
- **Chronic Wound:** Wound that has been present for >6 weeks and has shown no progression in 2 weeks (length and width change ≤20%)
- **Treatment:** Application of Exsalt® wound dressing for two weeks
- **Assessments:**

Baseline Assessment → 2 weeks with Exsalt dressing → Post-Dressing Assessment → 2 weeks with standard dressing → Follow-Up Assessment

- **Outcome Measures:** Wound area reduction as assessed using 3D imaging (**Figure 1**), BWAT-scores, and pain using a visual analogue scale

Figure 1. Wound area assessment using 3D imaging (Silhouette®, ARANZ Medical Ltd.).

Preliminary Results

Study Population:

- 17 chronic wound patients to date
- 10 female, 7 male
- Age: 68.4±14.5 years (mean±SD)

Wound Area Reduction:

- Baseline to post- Exsalt®: reduced by 13.5±31.5% (mean±SD)
- Baseline to follow-up: reduced by 12.7±45.0% (mean±SD)

BWAT/Pain:

- BWAT and pain decreased from baseline to post- Exsalt® and to the follow-up visit (**Figure 2**).

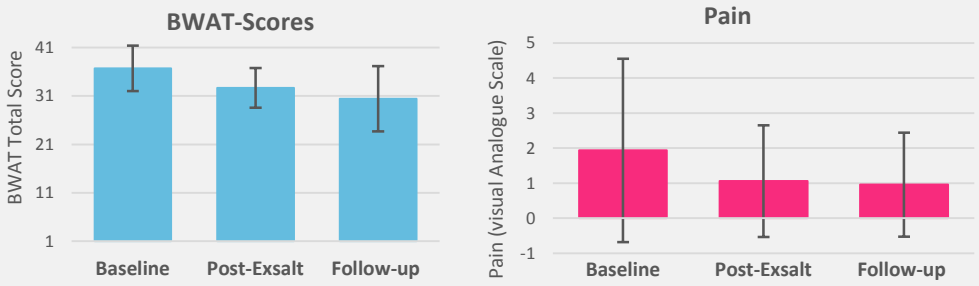

Figure 2. BWAT and pain-scores at baseline, after wearing the Exsalt® dressing for two weeks (Post-Exsalt), and after wearing a standard dressing for two weeks thereafter (Follow-up).

Interim Conclusion

- The **use of silver-oxynitrate (Exsalt®) dressings for two weeks may improve healing progression and wound-related pain in chronic wound patients.**
- **More conclusive results will be obtained** upon study completion with a target population of 25 participants.

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