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 healing1.
- Silver-oxynitrate is a novel silver compound with higher oxidation states, showing enhanced in vitro antimicrobial and anti-biofilm capacities over conventional silver compounds2.
- Exsalt® wound dressings could be of further benefit as they eradicate biofilms at lower silver concentrations than other silver compounds3.

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

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).

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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References


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

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).