UltraMIST® | Ultrasound Healing Therapy

Effects of Noncontact Low-Frequency Ultrasound on Healing of Suspected Deep Tissue Injury: A Retrospective Analysis

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OVERVIEW

The purpose of this retrospective study was to assess the effectiveness of noncontact low-frequency ultrasound (NLFU) on the healing of suspected deep tissue injuries (SDTI). Three characteristics–wound surface area, wound color/tissue assessment, and skin integrity–were measured both before and after treatment to determine wound progression.

If left unresolved, an SDTI can progress into a full thickness stage 3 or 4 pressure ulcer. Altering this progression is essential as it directly impacts a patient's quality of life. Current standard of care results in favorable outcomes (spontaneously resolved and stage 2 pressure ulcers) in only 22% of SDTIs.

OUTCOME

The addition of MIST Therapy* speeds the rate of healing, minimizes the amount of tissue loss, and increases favorable outcomes.

A severity scale measuring three key characteristics was developed to assess the SDTIs. Scale range is 3–18, with 18 being the most severe. The MIST Therapy group saw a reduction in wound severity, while the control group increased in severity.

	MIST THERAPY + SOC TREATMENT GROUP	SOC CONTROL GROUP
Pre-Treatment	9.0	9.62
Post-Treatment	7.55	10.68
Change	-1.45	+1.06

*Data was compiled utilizing MIST Therapy. UltraMIST is the next generation of MIST Therapy and maintains the same mechanism of action as the MIST Therapy used this study. See page 2 for safety information.

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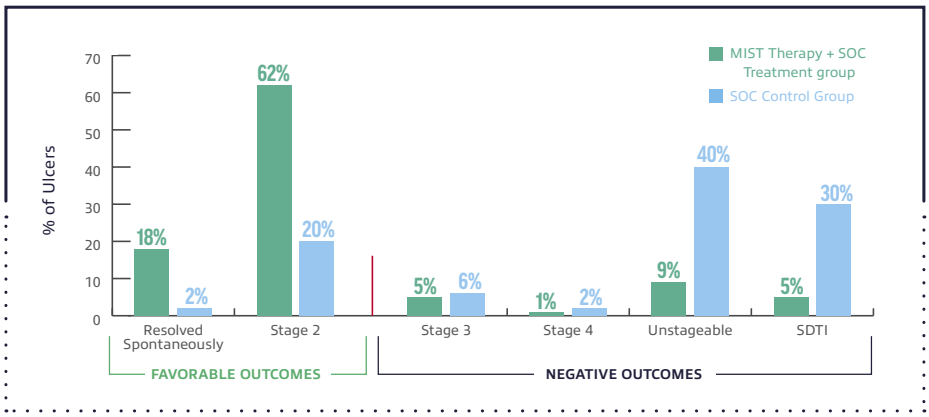
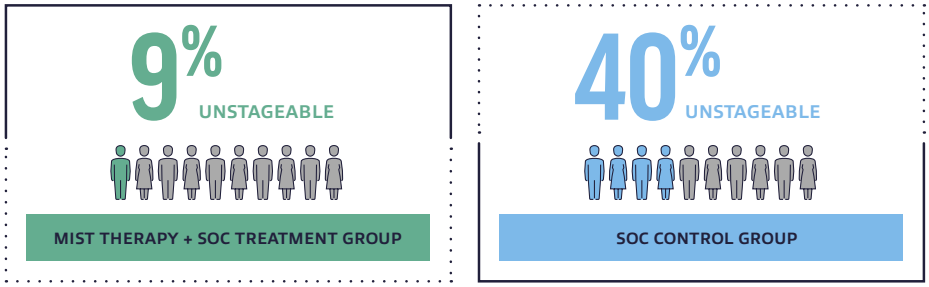
Final Pressure Ulcer Stage After Treatment (at Discharge): Substantially, more SDTIs resolved spontaneously or improved to Stage 2 pressure ulcers with the addition of MIST Therapy.



Reduced Unstageable Cases: The MIST Therapy treatment group saw a significant reduction in the number of unstageable cases.



CONCLUSION

IMPROVED PATIENT OUTCOMES: When used at the onset of SDTI, MIST Therapy reduces wound severity and improves patient quality of life.

STUDY METHODOLOGY

- Retrospective study with 85 patients; 127 SDTIs
- Both groups received standard of care including: repositioning schedule with assistive repositioning/turning devices, Trypsin-balsam-of-peru ointment twice daily or soft-silicone bordered foam, low air-loss bed, heel-off loading boots, dietetic consult.
- Treatment wounds received MIST Therapy daily x 5 days and then every other day until discharge or resolved – average number of treatments was 10.
- The Honaker suspected deep tissue injury severity scale was utilized to assess SDTI severity before treatment and healing/progression after treatment.

DESCRIPTION AND INDICATIONS FOR USE

Description: The UltraMIST® System delivers low-frequency ultrasound to the treatment site using a noncontact fluid (e.g., saline). Indications for Use: MIST Systems produce a low energy ultrasound-generated mist used to promote wound healing through wound cleansing and maintenance debridement by the removal of fibrin, yellow slough, tissue exudates, and bacteria.

CONTRAINDICATIONS, POTENTIAL COMPLICATIONS, AND WARNINGS

Contraindications: Do not use near electronic implants/prosthesis (e.g., near or over the heart or over the thoracic area if the patient is using a cardiac pacemaker); on the lower back during pregnancy or over the pregnant uterus; over areas of malignancies.

Potential Complications: Tingling, redness.

Warnings: UltraMIST applicator is designed as a single patient-use disposable unit to avoid contamination. Do not re-sterilize or reuse applicators. Reusing the applicator and/or fluid may result in infection and degraded performance. Do not allow the treatment wand or applicator to contact the patient's skin directly. Risk of burns: Do not touch the metal tip of the treatment wand during operation.

Please refer to the Instructions for Use for additional information.

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