

A Step Forward in Ulcer Management: The Clinical Findings of Cold Plasma Therapy for Torpid Ulcers in Legs

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Abstract:

Chronic Ulcers, particularly Venous Ulcers, are prevalent in medical practices and pose a significant negative impact on the quality of life of patients and the global healthcare system. In recent years, the use of Cold Atmospheric Plasma (CAP) treatment has gained increased attention in the medical community, with promising results [1], [2].

This study presents preliminary clinical results obtained from the use of a Cold Atmospheric Air Plasma Jet device in a clinical trial of chronic ulcers in the legs at Clínica Universidad de Navarra in Pamplona, Spain. The results show several cases of successful recovery and the selection of the most challenging patients with large ulcerated areas and previous pathologies that resulted in exhausted tissues.

Additionally, the study presents two interesting cases in which previous attempts at closing the ulcers using grafts were unsuccessful. The innovation in these cases consisted of using the air plasma jet to improve the vascularization of the ulcerous tissues before performing a new graft, with the intention of increasing the likelihood of its acceptance. The results of this new technique are highly encouraging.

Overall, these preliminary results demonstrate the potential of Cold Atmospheric Plasma as an effective treatment for chronic ulcers, particularly venous ulcers, and open up new possibilities for future research in this field.

Keywords: Plasma, Cold Atmospheric Plasma, Treatment, Venous Ulcers, Torpid Ulcers, Clinical Trial, Air Plasma Jet.



Figure 1: Evolution of a Venous Ulcer in a 94 years old patient.

References:

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