Author's Accepted Manuscript

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www.elsevier.com/locate/cpme

PII: S2212-8166(17)30016-1

https://doi.org/10.1016/j.cpme.2018.01.001 DOI:

Reference: CPME68

Clinical Plasma Medicine To appear in:

Received date: 14 August 2017 Revised date: 15 December 2017 Accepted date: 10 January 2018

Cite this article as: Régulo López-Callejas, Rosendo Peña-Eguiluz, Raúl Valencia-Alvarado, Antonio Mercado-Cabrera, Benjamín G. Rodríguez-Méndez, Jorge H. Serment-Guerrero, Agustín Cabral-Prieto, A. Concepción González-Garduño, N. Alberto Domínguez-Cadena, Jorge Muñoz-Infante and Mario Betancourt-Ángeles, Alternative method for healing the diabetic foot by means of plasma needle, Clinical Plasma Medicine. https://doi.org/10.1016/j.cpme.2018.01.001

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ACCEPTED MANUSCRIPT

Alternative method for healing the diabetic foot by means of a plasma needle

Régulo López-Callejas¹, Rosendo Peña-Eguiluz^{1*}, Raúl Valencia-Alvarado¹, Antonio Mercado-Cabrera¹, Benjamín G. Rodríguez-Méndez¹, Jorge H. Serment-Guerrero¹, Agustín Cabral-Prieto¹, A. Concepción González-Garduño¹, N. Alberto Domínguez-Cadena², Jorge Muñoz-Infante², Mario Betancourt-Ángeles²

¹Instituto Nacional de Investigaciones Nucleares, Plasma Physics Laboratory, AP. 18-1027, 11801, México.

²Centro Médico ISSEMYM Toluca, Av. Baja Velocidad 284 km. 57.5, San Jerónimo Chicahualco, 52170 Metepec, Méx.

*Corresponding author: rosendo.eguiluz@inin.gob.mx, phone: +55 53297200 ext. 12243

Abstract

People with diabetes and who eventually develop foot infections over time, remain a serious health problem. These infections, known as diabetic foot infections, usually start with small neuropathic ulceration, which, if not treated properly, can lead to limb amputation. This report presents the results of the case of an 83-year-old woman who was healed of a neuropathic ulcer after being exposed to a helium cold plasma using a plasma needle-type reactor. Along with this antecedent, we propose an alternative method consisting of the application of the helium cold plasma as an adequate option for the treatment and healing of this type of wounds.

Keywords: Diabetic foot; plasma needle; healing; method

Introduction

One of the most serious complications associated with diabetes is the risk of lower limb amputation due to infected and non-healing foot ulcers [1-5]. This is a deep-seated problem because according to several studies involving diabetic patients only, the fear of lower limb amputation is greater than the loss of vision, end-stage renal disease or even death [6,7]. Amputation rates in populations with diagnosed diabetes are typically 10 to 20 times those of non-diabetic populations, and in the last decade, they have ranged from 1.5 to 3.5 events per 1000 people per year in populations with diagnosed diabetes. In the first world countries, according to the World Health Organization, there was a 40% to 60% reduction in amputation rates in adults with diabetes during the last ten years, contrary to what happens in the countries of the third world [8]. Based on these statistical data is that non-curable ulcers are considered a major health

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