

# Platelet Rich Plasma

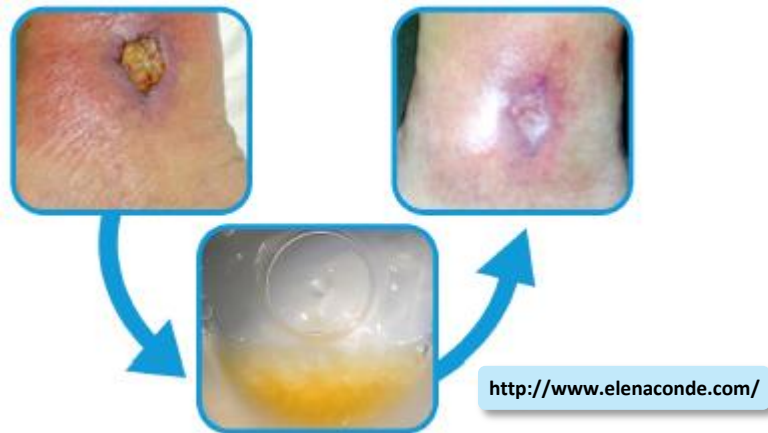
## Introduction

Chronic skin ulcers are a serious health problem which cause suffering for the patient as well as pose a considerable cost in the health care system. In recent years there have been considerable advances in obtaining and using patients own platelets in order to treat chronic skin ulcers. The current invention proposes an optimal route for the administration of plasma platelets to the problematic location.

## Invention

The invention is a composition of a gel and its use. A bioactive polymer forms a micro layer on the skin and permits a normal perspiration of the skin as well as it ensures a gradual release of bioactive components.

The fundamental theory upon which the platelet rich plasma gel is built on states that with a higher than physiological concentration of platelets and plasma proteins it is possible to accelerate the skin repair processes.



## State of Development

Currently the project is going under a two-month validation process authorized by Ethical Committee of the *Hospital General Universitario Gregorio Marañón* and the Spanish Agency for Medicaments. The procedure is supported by the "Unidad de Producción Celular y Medicina Regenerativa del IISGM".

## Advantages

- The **speed of the gel formation** allows immediate application of the gel right after the mixture between plasma and polymer.
- The method for obtaining the platelet rich plasma gel is simple and economically competitive.
- The gel permits the normal perspiration of the skin.
- The gel does not cause irritation nor chemical reactions and is comfortable to use.

- The characteristics of the active biopolymer optimize the platelet rich plasma and the regenerative effects of it.
- In the treatment of chronic ulcers it is not necessary to add other bioactive ingredients.
- The curing process is done under humid conditions, which contribute to the normal formation of scar tissue.
- The gel has a 6-month usage time.

## Application

This platelet rich plasma gel can be used in various dermatological applications, to name a few:

- Treatment of chronic skin ulcers.
- Androgenic alopecia.
- Alopecia areata.
- Facial rejuvenation.
- Usage after chemical or physical exfoliating of skin, as well as after laser resurfacing.
- Adjuvant to ensure the viability of grafting.

## Market potential

The gel has a substantial market potential, because skin ulcers are a problem that affect millions of persons globally. 3-5% of the over 65 years of age will suffer a leg ulcer during their lifetime. Literature suggests that about 20% of venous leg ulcers do not heal despite being treated with high compression. The cost of compression therapy for one patient with a venous leg ulcer over a period of 15 years is approximately €34,000.

An optimal gel facilitating the use of the patient's own platelets for their treatment with a competitive price could be revolutionary.

## IPR Position

Spanish patent granted and has been transferred to a company. Application number P201431583.

## Inventors

Elena Conde Montero from the *Hospital General Universitario Gregorio Marañón* and Enrique Alía Fernández-Montes.

Study funded by FIS Project (PI13/02577)

Contact:

Beatriz Pérez

+34 914269279

innovacion@iisgm.com

Unidad de Apoyo a la Innovación

www.iisgm.com/innovacion