

MEETING ABSTRACT

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Use of platelet gel for the treatment of diabetic foot ulcers

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Background

The aim of this paper is to evaluate the efficacy of platelet gel also for the management of “diabetic foot” lesions. The most important principle considered in this work is the activity of several tissue growth factors inside the pattern of gel.

Materials and methods

During a period of 4 years, we have considered 42 patients aged between 65 and 75 (F:M 3:1), all submitted to other therapeutic options with failure of previous therapy, Table 1.

The platelet gel is produced from concentrated PLT obtained with different procedures. These derive from the amount of required PTLs, mixed and gelled with Ca-gluconate. The combination with trombin allows the activation of gel. This active gel is immediately put on the lesions.

The following therapeutic scheme is mandatory for the correct practice:

1) antisepsis, cleansing, debridement and monitoring of exudate; 2) application of platelet gel; 3) weekly monitoring of lesions, Table 2

Results

Among the patients presenting stump dehiscence and arterial ulcers healing time has been long (from 4 to 6 months) but satisfactory. The best results have been

Table 1

Clinical presentation	Nr Cases
Stump dehiscence	8
Arterial ulcers	14
Neuropathic ulcers	20

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Table 2

Pathogenesis of ulcer	Nr Cases treated with platelet gel	Healing within 12 months
Dehiscence	8	6
Ischemic	14	10
Diabetic	20	14
TOTAL	42	30

observed in patients with neuropathic ulcers, if we consider the healing time of the wound within 6 months from the start of treatment. Of these 20 patients, 14 have presented a complete healing of wounds, 3 undergone a smaller amputation and 3 undergone a bigger amputation, after six months starting treatment.

Conclusions

The platelet gel may be considered an additional and innovative “weapon” available for the treatment of chronic skin lesions due to ulcers in “non responders” patients to ordinary therapies. It can be clearly considered a useful complement to the most popular and successful alternative therapeutic techniques nowadays in use (advanced dressings, skin grafts, etc.). Another significant feature is related to fast discharge of patients: this represents a very important socioeconomic aspect. The platelet gel dressing is a safe and not expensive technique with rapid healing times; its use should be considered on a large scale.

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Reference

1. American Diabetes Association: Preventive Foot Care in Diabetes(PS). *Diabetes care* 2004, **27**(Suppl1):S63-S54.

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