



Advanced wound healing with application of products with diversified propolis

Cura avançada de feridas com aplicação de produtos com própolis diversificada

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1 INTRODUCTION

In the understanding that we have in our country the industry and the raw material of elaboration of products derived from propolis, based on the evidence published in scientific articles that refer to the anti-inflammatory activity of propolis which is linked to the ability of its constituent polyphenols (flavonoids and aromatic acids) to inhibit NF-kB (nuclear transcription factor kappa-b) and reducing the



levels of inflammatory mediators, this produces a decrease in inflammation, pain and microbial load, it is then that for this reason it was decided to clinically verify the efficacy of this product in complex wounds by conducting a descriptive, prospective cross-sectional study.

2 GENERAL OBJECTIVE

Demonstrate the efficacy of this active in controlling bacterial load, immunomodulation, pain, and wound healing.

3 SPECIFIC OBJECTIVES

- Application of propolis products in users with venous ulcers, pressure ulcers and diabetic foot.
- Track and evolve the wound (photography, measurement of the mowa area)
- Pain scale measurement.

3.1 LIMITATIONS

Extra time to carry out the cross-sectional study for evaluation and then continuation of it.

Qualitative laboratory technique only describes the presence of microorganisms and no bacteriological count of colonies.

4 METHODOLOGICAL DESIGN

4.1 TYPE OF STUDY

Descriptive, Prospective with cross-sectional.

4.2 STUDY AREA

The research will be carried out in the Wounds Unit service of RAP Canelones Las Piedras.

4.3 UNIVERSE

The population under study is constituted by all users with coverage of the area of the Hospital de Las Piedras with referral to the Wounds Unit that meet the



inclusion criteria.

4.4 SAMPLE

Type of non-probabilistic sampling with convenience.

The sample will be adult users of both sexes who present Venous Ulcers, Pressure Ulcers, and Diabetic Foot, and who meet the inclusion criteria.

5 INCLUSION CRITERIA

Users who present Venous Ulcer, Pressure Ulcer and Diabetic Foot.

6 EXCLUSION CRITERIA

- Users with autoimmune and oncological diseases.
- Users with known allergy to propolis products.
- Discontinuity of treatment that does not attend 2 consultations followed or more.
- Non-compliance with elastocompression measures.
- Non-compliance with control of risk factors of its underlying pathology (HTN, DM)

6.1 METHODS AND INSTRUMENTS

The method that will be used is the observation and assessment of users and data collection of the electronic medical record, CEAP Scale, STAGING FOR UPP, TEXAS, SAN ELIAN, individualized assessment instruments for each wound, wound measurements (MOWA, ACETATE)

6.2 PROCEDURE

After the elaboration of the protocol, the data collection phase will begin in the stipulated period, after this phase, work will be done on the tabulation and analysis of the same and later a final report will be made with the corresponding proposal that covers the specific care that contemplates the needs presented by the users, which will be submitted to the Management of said Institution.



7 CONSENT

A consent was drawn up for entry into the research studio, as well as the photographic record and debridement maneuver.

7.1 HUMAN RESOURCES

This protocol will be planned, executed, and analyzed by members of the Unit team, composed of:

- Dr. Adrian Marichal
- Dr. Adrian Ramos.
- Lic. Enf Claudia Rodriguez
- Aux Enf Carla Burguez.

7.2 MATERIAL RESOURCES

- Stationery supplies (pens, pencils, sheets)
- Forms.
- Computer and printer.
- Graphic bibliography and internet.
- Materials for curing, products for curing wet environment.

It should be noted that the product to be studied is provided by Laboratorio Apiter.

7.3 TABULATION AND ANALYSIS PLAN

After data collection, they will be analyzed using univariate or bivariate tables with nominal, ordinal, and continuous quantitative qualitative variables. The variables will be presented in frequency distribution tables and graphs as suggested for this type of study in the bibliography consulted.

7.4 VARIABLES

The variables to be studied in this research work are the following:

Variables related to the characterization of the population: age, sex, pathology (DM, hypertension, IVC, Lymphedema, Obesity) nutritional status,



degrees of dependence, healing time.

7.4.1 Types of wounds

Variables related to research:

Clinical evolution of the Wound documented by photography.

Pain. EVA at 30 min after applying the product and a follow-up of 24, 48 and 72 hrs

7.4.2 Measurement of the wound area

- ACETATE
- MOWA.
- INFECTION

7.5 CLINIC

Presence of fluxive signs (flushing, heat, pain, edema)

Wound Bed Biopsy (PUNCH)

7.6 MATERIALS

- Stationery supplies
- Miscellaneous forms.
- Materials for curing, products for wet environment curing with propolis in their presentations of dressing, lotion, ointment.
- Camera.
- Acetates.

8 METHODS

The method that will be used is the observation and assessment of the users, collection of data from the electronic medical record, individualized assessment instruments for each wound, wound measurements (MOWA, ACETATE) and EVA as a pain scale.

Tolerance test



9 RESULTS

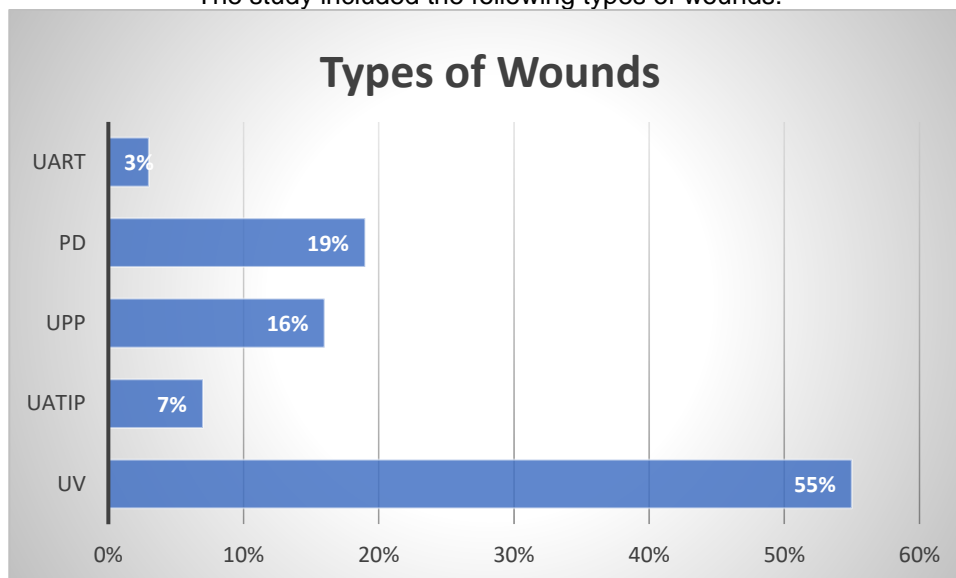
The study began on 2/1/2019, a cut is made on 1/6/21. **TOTAL 30 MONTHS**

To date we have:

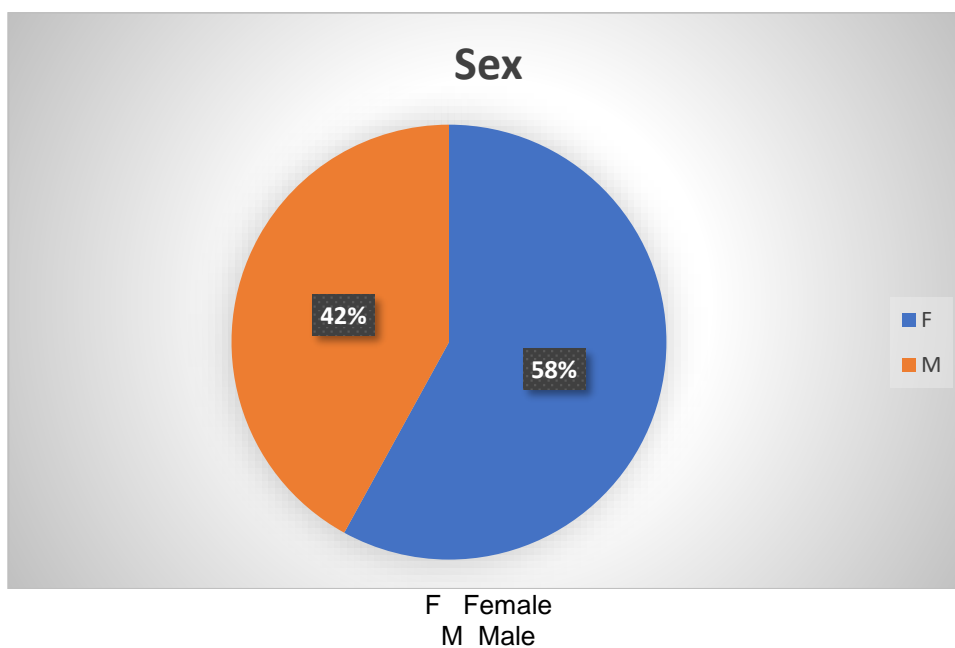
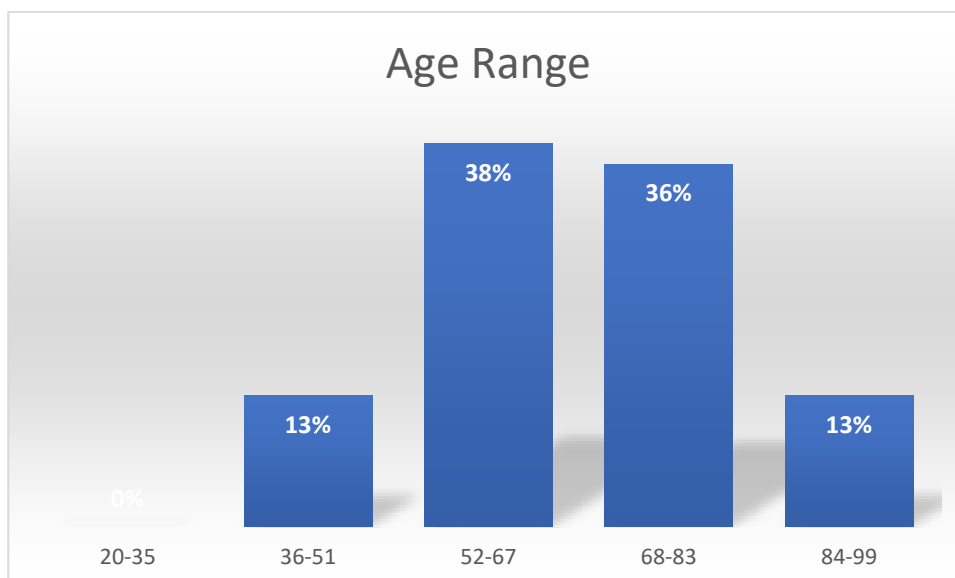
N Total Patients 163 is broken down as follows:

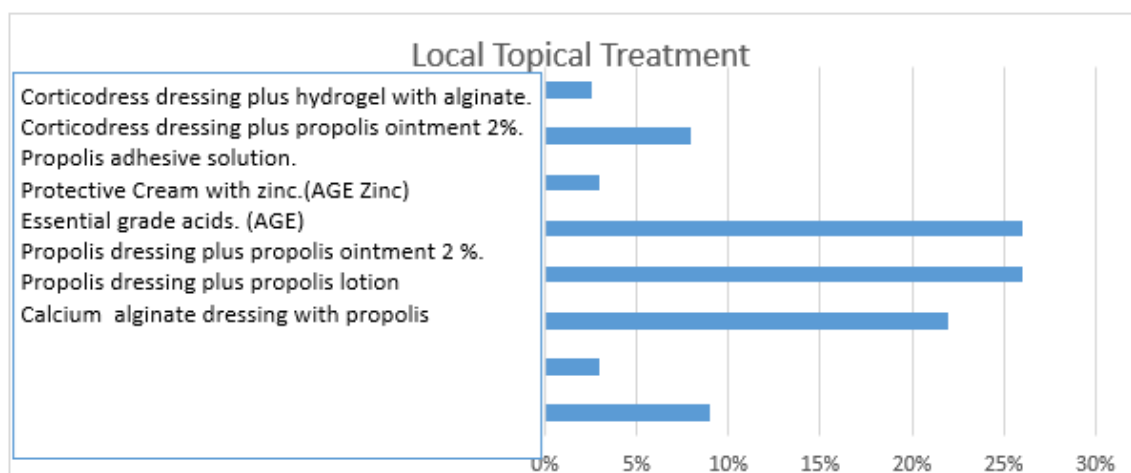
- Abandonments x external reasons 5 users.
- Allergies 9 users
- Deaths 11 (Cancer, stroke, AMI, COVID)
- Referrals to 2nd Level of Care 8 users.
- Number of Completed Patients 130

The study included the following types of wounds:

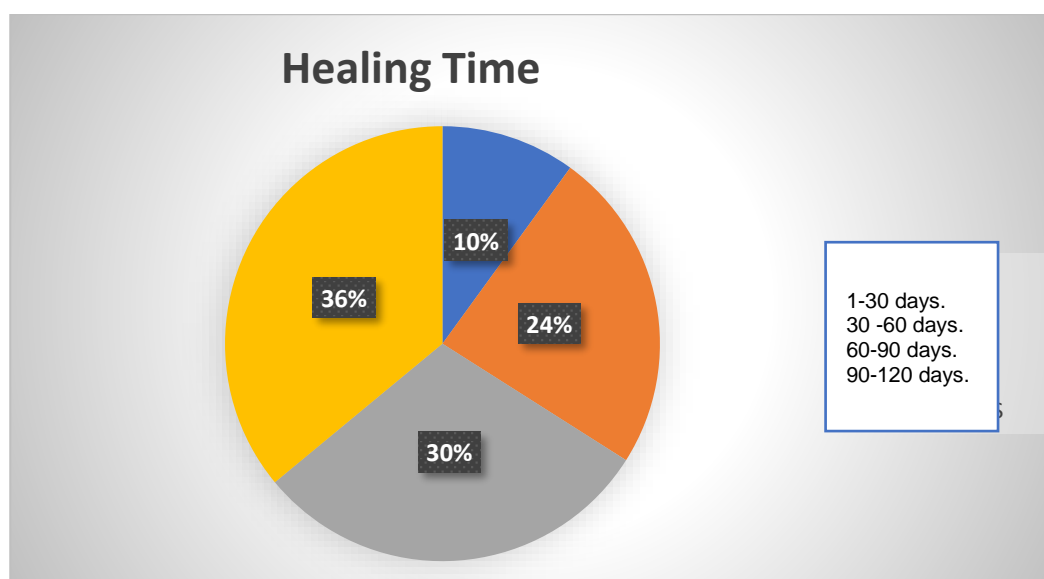
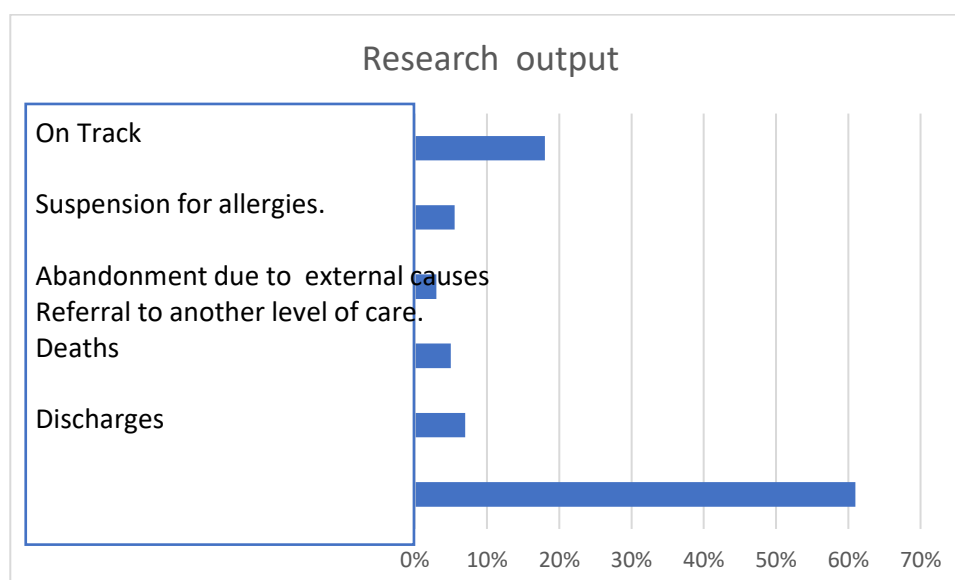


- UV Venous Ulcers (71 participants)
- UArt Arterial Ulcers or Non-Diabetes Arthropathies (4 participants)
- UPP Pressure Ulcers (21 participants)
- PD Diabetic Foot (25 participants)
- U Atip Atypical Ulcers (9 participants).



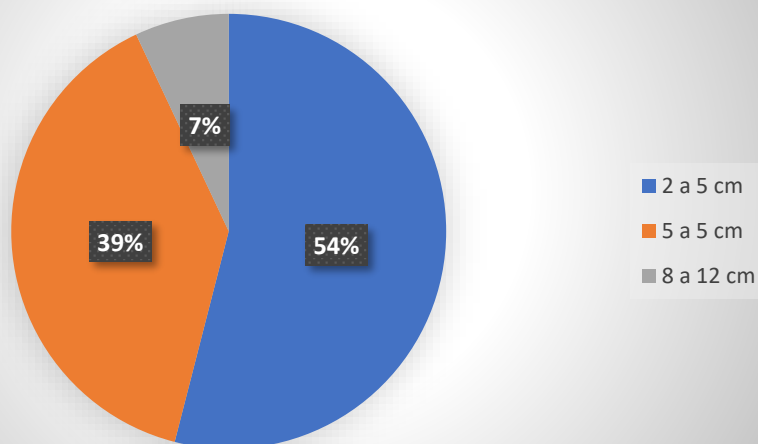


*It should be noted that each user normally uses 3 products (AGE/AGE ZINC/APOSITO) at some times it is interspersed with other associations according to the wound clinic

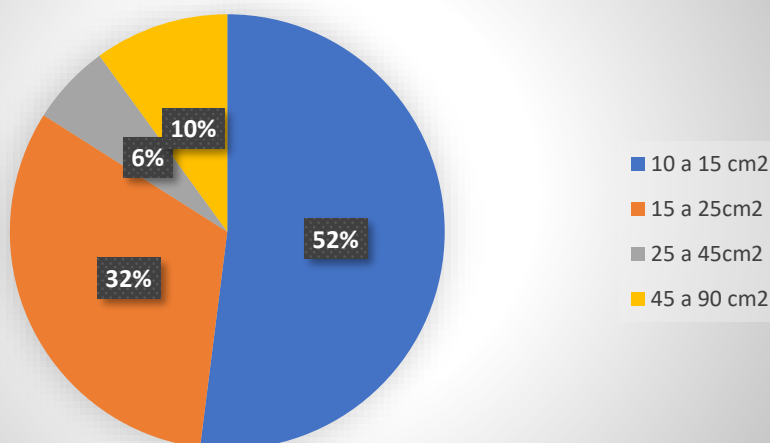




Monthly diameter decrease



Decreased wound Area

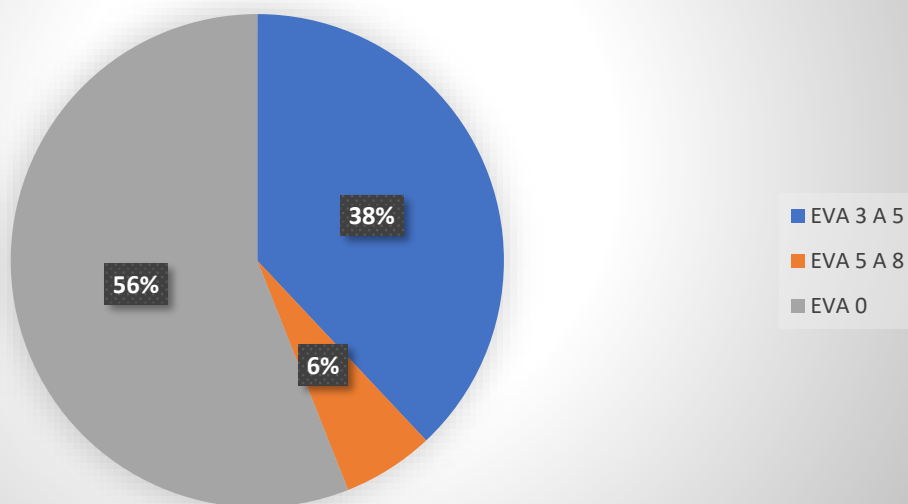


One of the measurement variables was the presence of pain after the application of propolis products and their different combinations.

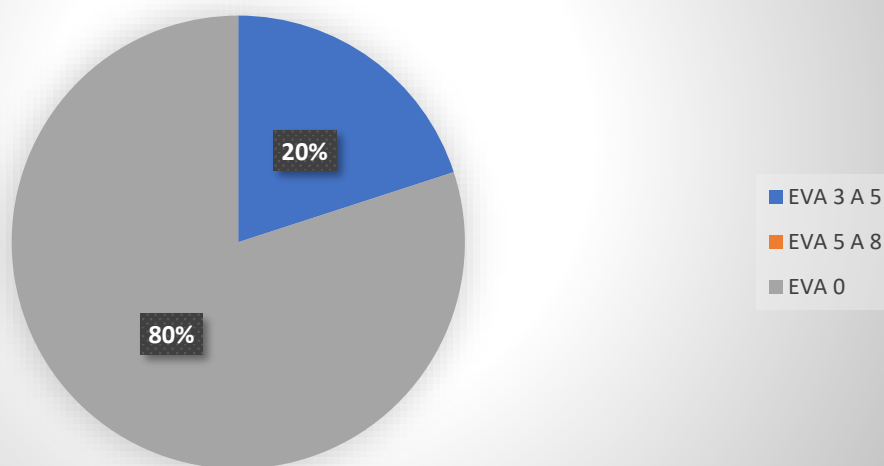
The EVA Scale 1/10 was used and applied at 3 different times 30 min after healing, 24, 48, and 72 hours after it.



Calcium alginate dressing with propolis 30 minutes later

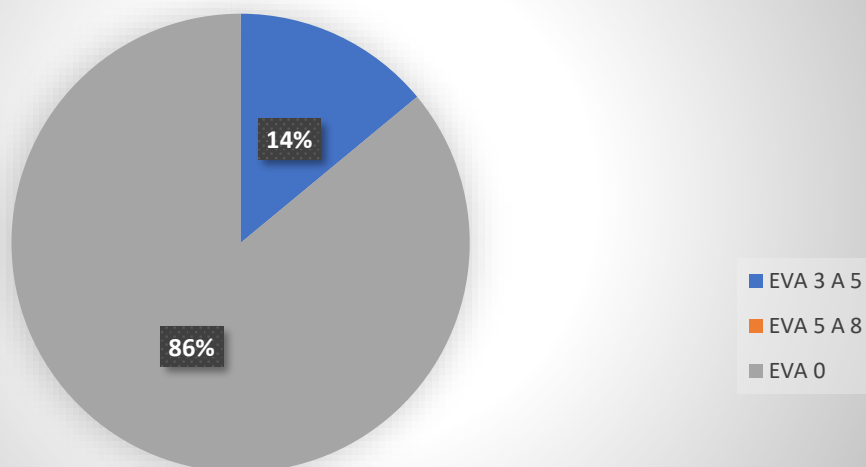


Calcium alginate dressing with propolis 24 hours later

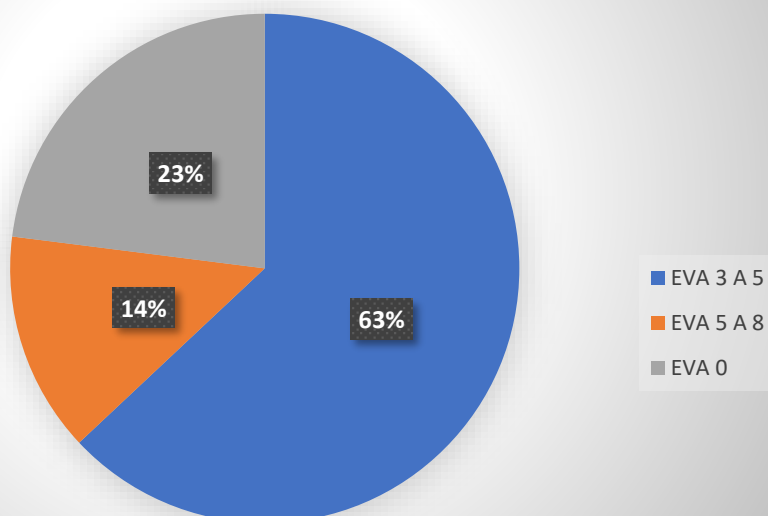




Calcium alginate dressing with propolis 48 hours later

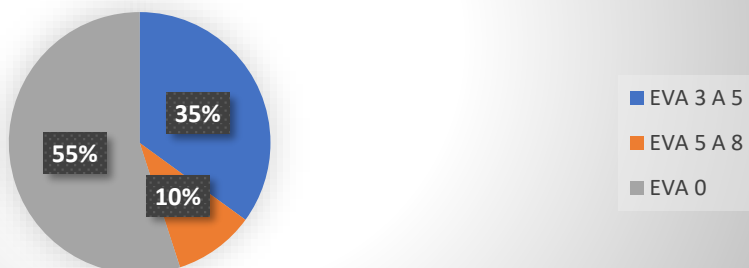


Propolis dressing plus propolis ointment 2 % 30 minutes later





Propolis dressing plus propolis ointment 2
%
24 hours later

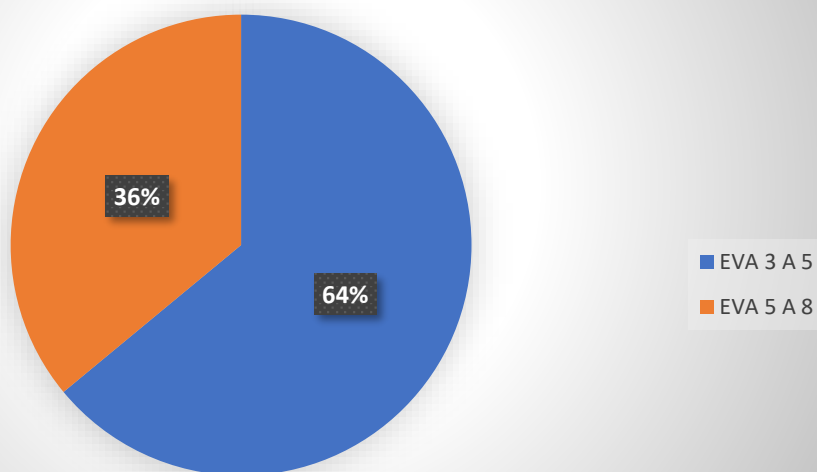


Propolis dressing plus propolis ointment 2
%
48 hours later

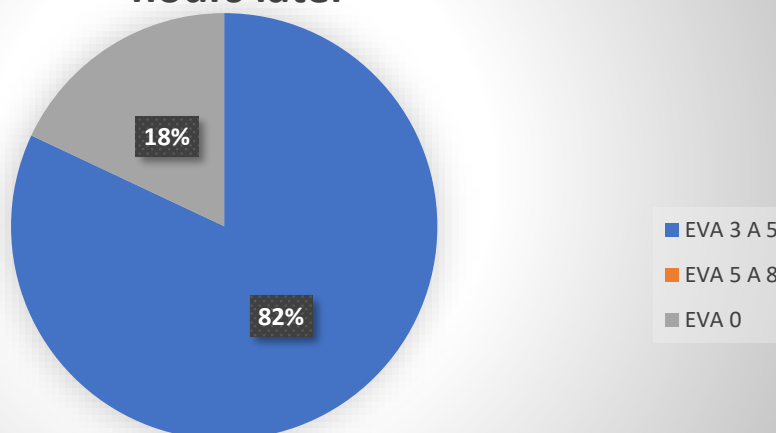




Propolis dressing plus propolis lotion 30 minutes later

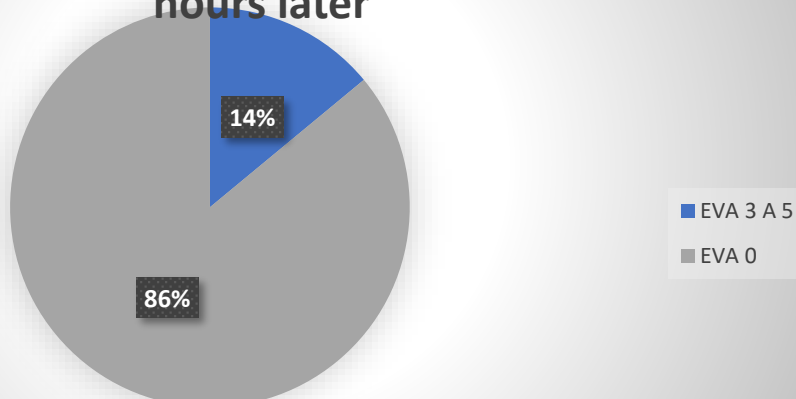


Propolis dressing plus propolis lotion 24 hours later

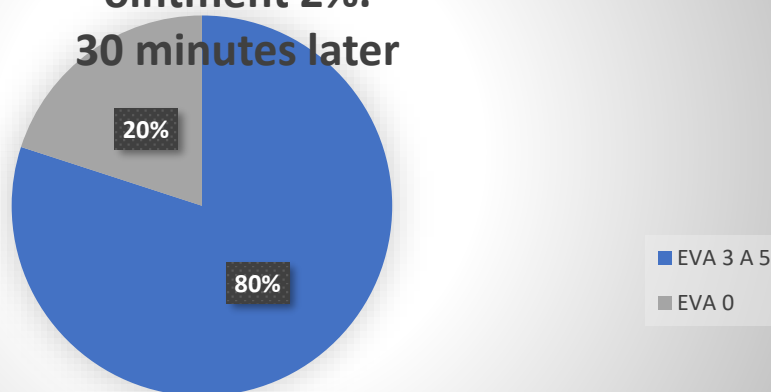




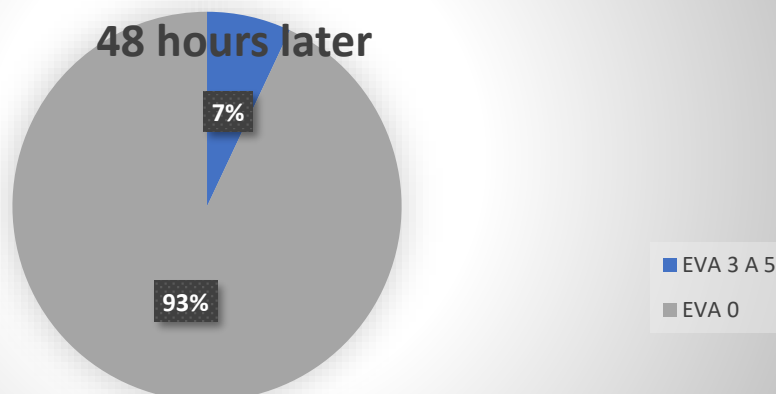
Propolis dressing plus propolis lotion 48 hours later



Corticodress dressing plus propolis ointment 2%. 30 minutes later



Corticodress dressing plus propolis ointment 2%. 48 hours later





10 CONCLUSIONS

So far we can say that if it is clinically verifiable the effectiveness of the products with propolis reduces pain, inflammation and therefore favors healing with a humid environment.

It was possible to verify with practical scientific evidence the different combinations and uses of the products that we will detail below in which cases and because their use is based:

- The combination of Propolis Dressings with propolis in 2% Ointment has allowed to maintain a humid environment since the dressing absorbs the component and keeps the wound moist and in turn does not allow adhesion to the tissues in formation of the wound and therefore does not produce pain. In addition to the effectiveness against biofilm that was demonstrated by laboratory wound cultures.
- The combination of Calcium Alginate dressings moistened in Propolis Lotion has favored in the prolonged release of propolis in the bed does not allow adhesion because it is gelled and is also used under Unna boot therefore its change allows us to space up to 4 days.
- The combination of Propolis Dressing / sprayed by Propolis Lotion allows us to perform a more intensive treatment on the more fixed mature biofilm because evaporating the solution allows a mechanical debridement of the biofilm.
- This form of combination is always used the first time users have contact with propolis products in order to test the adverse reactions that may occur unknown to the participant.
- The use of Corticodress dressings has allowed us to lower hypergranulation and in some cases when propolis produces pain in combination with Propolis Ointment it has allowed us to lower the pain and be able to act on the biofilm together.

It should be noted that the product is a part of the treatment obviously the adherence to all the integral pillars allows the healing to be different in each participant, taking into account the associated pathologies, advanced therapies applied drugs, discharges, etc. produces different healing times.



Keywords: propolis, pain, inflammation, immunomodulation, cicatrization

FINANCIAL RESOURCES

They will be contributed by RAP ASSE.



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