Impact of treatment with plasma rich in growth factors (PRGF) in patients with severe dry eye.

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Confidentiality Statement: This document contains confidential information that must not be disclosed to anyone other than the Sponsor, research team, members of the Research Ethics Committee, and Regulatory Authorities.

Table of Contents

1. Contacts....4
2. General Summary....4
3. Synopsis....5
4. Abbreviations....6
5. Project Summary....6

5.1. Background....6

5.2. Rationale....7

6. Objectives....7
7. Methodology....7

7.1. Design....7

7.2. Study population....7

7.3. Inclusion and exclusion criteria....8

7.4. Sample size....8

7.5. Primary and secondary variables....8

7.6. Schedule....9

8. Procedures....10

8.1. Recruitment and selection....10
8.2. Informed consent....11

9. Early withdrawal or discontinuation....11
10. End of the study....11

10.1. Study difficulties and limitations....12

11. Work plan....12
12. Study interventions....12

12.1. Randomization....12
12.2. Masking....12
12.3. Medication storage....12

13. Adverse event reporting....13

13.1. Definitions of adverse events....13

14. Causality assessment....14
15. Procedures for reporting adverse events....14
16. Statistical analysis....14
17. Data management....15

17.1. Source document....15
17.2. Data access and storage....15

18. Quality control procedures....15
19. Ethical and regulatory considerations....15

19.1. Declaration of Helsinki and Good Clinical Practice....15
19.2. Approvals....15
19.3. Confidentiality....16

20. Costs and benefits....16
21. Finance and insurance....16

21.1. Funding....16
21.2. Insurance....16

22. Publication policy....16
23. Intellectual property....16
24. Archiving....16
25. Budget....17
26. References....17

1. Contacts

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2. General Summary

Dry eye is a multifactorial disease that significantly affects patients' quality of life and, in many cases, has a limited response to conventional topical treatment. PRGF has demonstrated anti-inflammatory and regenerative properties on the ocular surface, with favorable clinical outcomes in previous studies conducted primarily in foreign populations. However, evidence in Latin American populations remains scarce, which justifies conducting this study.

A prospective, randomized, masked study will be conducted, including 100 patients over 18 years of age with a diagnosis of severe dry eye. Participants will be randomly assigned in a 1:1 ratio to one of two treatment groups. The control group will receive standard topical treatment, including eyelid hygiene, artificial tears, cyclosporine, a tapering regimen of topical corticosteroid, and balanced saline solution as placebo. The intervention group will receive the same standard treatment, replacing the placebo with topical PRGF administered four times daily for one month.

All patients will be evaluated at a baseline visit and at a follow-up visit four weeks after treatment initiation. All patients will receive a follow-up phone call 2 weeks after treatment initiation, and each patient's follow-up after completion of the study will be at the treating physician's discretion. The primary objective of the study is to determine the change in dry eye symptoms using the Ocular Surface Disease Index 6 (OSDI-6) questionnaire. Secondary objectives will evaluate changes in clinical signs of the ocular surface, including tear quantity and stability, conjunctival hyperemia, meibomian gland dysfunction, corneal and conjunctival staining, as well as the occurrence of treatment-related adverse events.

The risks associated with the study are considered minimal and are mainly related to the blood draw required for PRGF preparation and to topical use of the product; mild and transient local adverse events may occur.

The study will be conducted in accordance with the principles of the Declaration of Helsinki, the Good Clinical Practice Guidelines, and Ministerial Agreement 206-2021 of the Ministry of Public Health and Social Assistance of Guatemala. All participants will sign an informed consent form before enrollment in the study. Confidentiality of personal data will be ensured through coding of the information, and the study will have civil liability insurance covering any harm directly resulting from participation in the research.

3. Synopsis

Study title	Impact of treatment with plasma rich in growth factors (PRGF) in patients with severe dry eye.
Sponsor	Laboratorios Lansier
Promoter	Clínica Visualiza
Study Design	Prospective, randomized, masked study.
Sample Size	100 subjects
Study duration	40 weeks
	OBJECTIVES
Primary	Determine the change in dry eye symptoms following treatment with PRGF.
Intervention	Route of administration: topical Standard treatment: - Eyelid hygiene once daily with a preservative-free foaming solution - Preservative-free sodium hyaluronate 3% drops as needed, - Preservative-free cyclosporine 0.05% twice daily, - Loteprednol 0.2% twice daily for 15 days. - Dexpanthenol 5.0% as needed 1 dropper of PRGF 4 times daily for 1 month
Comparator	Route of administration: topical Standard treatment: - Eyelid hygiene once daily with a preservative-free foaming solution - Preservative-free sodium hyaluronate 3% drops as needed, - Preservative-free cyclosporine 0.05% twice daily, - Loteprednol 0.2% twice daily for 15 days. - Dexpanthenol 5.0% as needed 1 dropper of balanced saline solution 0.9% (as placebo) 4 times daily for 1 month.

4. Abbreviations

MGD	Meibomian gland dysfunction
AE	Adverse Event
SAE	Serious adverse event
GCP	Good Clinical Practice Guidelines
IL	Interleukin
NIBUT	Non-invasive Tear Break-Up Time
OSDI-6	Ocular Surface Disease Index 6
IOP	Intraocular pressure
PRGF	Plasma rich in growth factors
AR	Adverse Reaction
TNF	Tumor necrosis factor

5. Project Summary:

5.1) Background

The Tear Film and Ocular Society Dry Eye Workshop III (TFOS DEWS III) defines dry eye as a symptomatic multifactorial disease characterized by loss of homeostasis of the tear film and/or ocular surface, in which tear film instability and hyperosmolarity, together with inflammation, ocular surface damage, and neurosensory abnormalities, play an etiological role.[1]

The current disease classification framework seeks to move away from mutually exclusive categories and indicates that aqueous-deficient dry eye and evaporative dry eye exist along a continuum and that both entities may coexist.[1] In fact, a retrospective study conducted to determine the distribution of dry eye according to its classification showed that most patients had meibomian gland dysfunction (MGD) or a mixed component.[2]

Despite being one of the most common ocular disorders in clinical practice, prevalence data for the disease are limited. The meta-analysis published in the TFOS DEWS II Epidemiology Report states that the global prevalence of the disease ranges from 5 to 50%.[3] Another meta-analysis published in 2020 reported an estimated prevalence of 35.8%, with important variations according to ethnicity (more common among Arab and Hispanic populations).[4] A prevalence study in Spain showed that the prevalence of symptomatic and asymptomatic disease was 30.5%.[5]

Plasma rich in growth factors (PRGF) has the advantage of eliminating pro-inflammatory factors released by leukocytes, including IL-6, IL-1β, and TNF-α, which are related to the inflammatory

processes of some ocular diseases, thereby improving tear homeostasis, reducing inflammation and surface damage, and regulating neurosensory activity.[6,7]

PRGF has been used for several years to treat dry eye disease and has been shown to be effective in both aqueous-deficient dry eye and evaporative dry eye.[8,9] Some randomized studies report improvement in symptoms, while other studies report changes in corneal staining.[10]

5.2) Rationale

To date, studies evaluating the outcomes of PRGF for the treatment of dry eye have been published. These studies have been conducted primarily in populations from the United States and Europe.[8-11]

The proposed study aims to objectively evaluate changes in the symptoms and signs associated with dry eye disease in order to generate information that strengthens the evidence and contributes to knowledge regarding the optimal treatment regimens and parameters for the disease.

6. Primary and Secondary Objectives

Primary Objective:
-Determine the change in dry eye symptoms following treatment with PRGF.
OSDI-6 test

Secondary objectives:
- Assess changes in:
Tear quantity (tear meniscus height - Jenvis)
Tear stability (NIBUT - Jenvis)
Conjunctival hyperemia scale (redness scale - Jenvis)
Meibography (degree of dysfunction - Jenvis)
Changes in the cornea and conjunctiva (staining - OSS scale)
- Evaluate the safety of PRGF
Adverse events

7. Methodology

7.1. Design

Prospective, randomized, masked study.

7.2. Study population

Patients with severe dry eye disease. Two groups will be created using automatic randomization software.

- Group 1: 50 patients with severe dry eye who will receive standard topical treatment, including eyelid hygiene once daily with a preservative-free foaming solution, preservative-free sodium hyaluronate 3% drops as needed, preservative-free cyclosporine 0.05% twice daily, loteprednol 0.2% twice daily for 15 days and then once daily for 7 days. Polyacrylic acid 0.2% as needed. 1 dropper of balanced saline solution 0.9% (as placebo) 4 times daily for 1 month.

- Group 2: 50 patients with severe dry eye who will receive standard topical treatment (as previously described) and will be given PRGF to use 4 times daily for 1 month (instead of placebo).

In both groups, the treating physician may add medications to the standard treatment at their discretion, as well as other therapies such as punctal plugs. Other non-invasive therapies such as intense pulsed light, low-level light therapy, quantum molecular resonance, thermal pulsation therapy, or laser/plasma technology may not be performed while the patient is participating in the study.

7.3. Inclusion and exclusion criteria

Inclusion:

- Any patient of either sex over 18 years of age with severe dry eye disease for whom PRGF treatment is indicated and who presents for consultation between March and December 2026.

- Acceptance of participation in the study and signing of informed consent (Appendices 1 and 2).

Exclusion:

- Platelet diseases or coagulation disorders
- Active systemic infection.

7.4. Sample size

We anticipate that the inclusion of 100 patients (50 per group) will provide 80% statistical power to detect an absolute difference in OSDI of 11.2 in a comparison of means between two samples, assuming a standard deviation of 20 based on previous studies and an alpha level of 0.05.[8-10,12]

7.5. Primary and secondary variables

Primary variable:
- Dry eye questionnaire (OSDI-6)

Secondary variables:
- Tear meniscus height (Jenvis)
- Non-invasive Tear Break-Up Time (Jenvis)
- Corneal staining (OSS scale)
- Conjunctival hyperemia (Jenvis)
- Meibography (Jenvis)

Primary variable	**Variable type**	**Variable definition**	**Operational definition**	**Instrument**
OSDI-6	Discrete quantitative	Questionnaire specifically designed to measure the severity of ocular surface disease.	0-3 - normal 4-7 - mild-moderate dry eye ≥ 8 - severe dry eye	Questionnaire
Secondary variables	**Variable type**	**Variable definition**	**Operational definition**	**Instrument**
Tear meniscus	Discrete	Tear meniscus height	<0.2mm - low	Keratograph 5M

	quantitative	measured by anterior segment optical coherence tomography	0.2 - 0.35mm - normal > 0.35mm high	(Jenvis)
NIBUT	Quantitative	Tear film break-up time. Time elapsed from a complete blink until the visual quality index falls below a defined threshold.	Average tear film break-up time	Keratograph 5M (Jenvis)
Corneal staining	Ordinal qualitative	Fluorescein examination to detect corneal/conjunctival epithelial damage	**OSS scale** **Nasal and temporal conjunctiva (lissamine green)** Grade 0 - 0-9 points Grade 1 - 10-32 points Grade 2 - 33-100 points Grade 3 - > 101 points **Cornea (fluorescein)** Grade 0 - no spots Grade 1 - 1-5 spots Grade 2 - 6-30 spots Grade 3 - > 31 spots **Corneal staining pattern** Confluent +1 In pupillary region +1 Filaments +1 **Classification** Mild dry eye 3-4 points Moderate dry eye 5-8 points Severe dry eye 9-12 points	Fluorescein + lissamine green with biomicroscopy
Meibomian gland dysfunction	Ordinal qualitative	Degree of Meibomian gland atrophy, abbreviated analysis (lower eyelids of both eyes only)	**Jenvis classification scale for Meibomian glands** Grade 0 - no loss Grade 1 - loss less than 1/3 Grade 2 - loss between 1/3 and 2/3 Grade 3 - loss greater than 2/3	Keratograph 5M (Jenvis)
Conjunctival hyperemia	Quantitative	Conjunctival redness secondary to inflammation and vasodilation.	Measurement of total redness in the bulbar and limbal conjunctiva	Keratograph 5M (Jenvis)
Adverse event	Nominal qualitative	Unforeseen and unexpected incident resulting from the intervention	**Description of ocular or periocular findings on evaluation:** Uveitis Iritis Pigmentary changes Erythema Infectious keratitis	Clinical evaluation/electronic record

OSDI: Ocular Surface Disease Index, NIBUT: Non-invasive Tear Break-Up Time.

7.6. Schedule

	VISIT 0. Data collection	VISIT 1. Randomization and PRGF preparation in Group 2 patients	Follow-up call. 2 weeks after treatment initiation	VISIT 2. 4 weeks after treatment initiation
Inclusion criteria	X			
Exclusion criteria	X			
Informed consent signature	X			
OSDI-6	X			X
Tear meniscus height (Jenvis)	X			X
NIBUT (Jenvis)	X			X
Corneal and conjunctival staining (OSS)	X			X
Hiperemia conjuntival (Jenvis)	X			X
Meibography (Jenvis)	X			X
Adverse events (AE)			X	X

OSDI-6: Ocular Surface Disease Index 6, NIBUT: Non-invasive Tear Break-Up Time.

8. Procedures

8.1. Recruitment and selection

Patients of either sex with severe dry eye disease for whom PRGF treatment is indicated will be invited to participate in the study. The study will include 3 visits. It is important to note that, ideally, no changes will be made to the standard treatment regimen between visits in order to avoid introducing bias; however, the treating physician may add medications to the standard treatment at their discretion.

At Visit 0 (V0), the study will be explained and informed consent (Appendix 1) will be requested from all patients with severe dry eye who meet the study selection criteria. The research team will collect data from the tests and questionnaire performed for the diagnosis of dry eye. These data will be recorded on the study data collection form. Once the patient has agreed to participate, randomization will be performed during Visit 1 and standard treatment will be prescribed for both groups. Patients in Group 1 will be prescribed balanced saline solution 0.9% eye drops (placebo) 4 times daily for 1 month. Patients in Group 2 will be prescribed PRGF 4 times daily for 1 month. The promoter's protocol (Clínica Visualiza) (Appendix 3) will be followed to prepare the PRGF eye drops. Two weeks after treatment initiation, a follow-up phone call will be made to document adverse events. Visit 2 will take place 4 weeks after treatment initiation; at this visit, all dry eye diagnostic tests and the questionnaire will be repeated. These data will be recorded on the study data collection form.

All data will be collected from secondary sources (medical records) and identified by a code. Only the principal investigator and collaborators will be able to link these data to the subject and their medical record. The data will be pseudonymized to ensure confidentiality. Coding will be performed as follows:

Coding example:

Study code - 001, 002, 003 ... 030

The first patient will be coded as follows: PRGF2026-01... PRGF2026-100

Protection of privacy and confidential processing of the personal data resulting from the project will be ensured in accordance with Article 35 of the Political Constitution of the Republic of Guatemala and Initiative 4090-2009, Personal Data Protection Law and guarantee of digital rights with respect to the processing and free movement of personal data.

This study does not interfere with physicians' prescribing or clinical practice because patients for whom PRGF treatment is considered indicated will be included. The tests included in the study are part of routine practice and do not pose a risk to participants. Patients will be informed of the study objectives, the characteristics to be evaluated, and that participation in the study will not entail any additional expense.

Patient flow:

Physician visit, OSDI-6 questionnaire, and dry eye tests in the clinic (tear meniscus measurement, NIBUT, conjunctival hyperemia, meibography, and OSS staining) → explanation of the study and the procedure for obtaining plasma, signing of informed consent → randomization → blood draw in the operating room for PRGF preparation (Appendix 3) for Group 2 patients → explanation of standard treatment in both groups and initiation of PRGF treatment 4 times daily in Group 2 patients → follow-up call to document adverse events 2 weeks after treatment initiation → schedule a follow-up visit with the physician 4 weeks after treatment initiation to repeat the OSDI-6 questionnaire and dry eye tests (tear meniscus measurement, NIBUT, conjunctival hyperemia, meibography, and OSS staining). Follow-up and treatment of each patient after completion of the study will be at the physician's discretion.

8.2. Informed consent

Subjects who express explicit interest in participating and are eligible will be informed verbally and in writing, in simple and understandable language, about the nature, duration, risks, benefits, and alternatives of the proposed treatment; the commitments they undertake (adherence to the treatment protocol and follow-up); informed consent; and the confidentiality process. Eligible subjects will have the opportunity to ask questions about the research and clarify any concerns in a calm environment. All questions will be answered appropriately to ensure that the subject has all the information required to make a decision regarding participation in the study. (See informed consent).

9. Early withdrawal or discontinuation

During the course of the study, a participant may withdraw early for several reasons, including but not limited to:

The occurrence of an adverse event that the participant perceives as intolerable. Failure to comply with study procedures or withdrawal by personal decision.

The criteria for considering possible early termination of the study by the principal investigator are:

More than 5 cases of adverse events in either of the 2 groups: uveitis, iritis, pigmentary changes, erythema, infectious keratitis

If any of the circumstances mentioned above occurs, the medical monitor may recommend forming an external safety and monitoring committee including 3 experts to review the cases and generate a report of findings/recommendations. The principal investigator will submit this information to the Ethics Committee, which will analyze the cases and determine whether they constitute sufficient grounds to consider terminating the study. The principal investigator will notify the sponsor, the Research Ethics Committee, and all study participants of the reason(s) for study termination. All subjects at risk will continue to be monitored according to the time schedule established in the protocol.

10. End of the study

The study will end on the date of the last visit of the last subject or earlier if any of the criteria in Section 9 are met.

10.1. Study difficulties and limitations

The main limitation will be the number of patients who can be recruited due to the inclusion criteria.

11. Work plan

	Protocol development	Database development	Statistical analysis	Final report writing
November - December 2025	X (Dr. Renato Papa)			
June-December 2026		X (Dr. Renato Papa)		
December 2026			X (Dr. Renato Papa)	
December 2026				X Dr. (Renato Papa)

12. Study interventions

- Group 1: 50 patients with severe dry eye who will receive standard topical treatment, including eyelid hygiene once daily with a preservative-free foaming solution, preservative-free sodium hyaluronate 3% drops as needed, preservative-free cyclosporine 0.05% twice daily, loteprednol 0.2% twice daily for 15 days and then once daily for 7 days. Polyacrylic acid 0.2% as needed. 1 dropper of balanced saline solution 0.9% as placebo 4 times daily for 1 month.

- Group 2: 50 patients with severe dry eye who will receive standard topical treatment (as previously described) and will be given PRGF to use 4 times daily for 1 month (instead of placebo).

In both groups, the treating physician may add medications to the standard treatment at their discretion, as well as other therapies such as punctal plugs. Other non-invasive therapies such as intense pulsed light, low-level light therapy, quantum molecular resonance, thermal pulsation therapy, or laser/plasma technology may not be performed while the patient is participating in the study.

12.1. Randomization: once the patient meets the study inclusion and exclusion criteria, has signed the informed consent form, and has completed both the OSDI-6 test and the dry eye studies (Keratograph M5 Jenvis), an investigator (unmasked) will randomize the patient (this investigator will not be involved in data collection). This unmasked investigator will use a previously generated randomization list to assign the patient to the treatment group or control group according to the generated code (only this investigator will have access to the randomization list). Once randomization has been completed, a masked investigator will instruct the patient on how to apply the treatment regardless of the group to which the patient was assigned.

12.2. Masking: Identical droppers will be used for placebo and PRGF. This ensures that patients, investigators, coordinators, and the data collection and analysis team will remain masked throughout the process. Only the unmasked investigator responsible for patient randomization will have access to the previously generated randomization list used to assign the patient to the treatment or control group. This investigator will not be involved in data collection during the study.

12.3. Medication Storage: Study medications will be stored and protected from light according to the manufacturer's specifications in a site specifically designated for this purpose. Temperature will be monitored and recorded daily (twice a day) using a room thermometer.

- Preservative-free foaming solution (Visclar): do not store above 30°C.
- Preservative-free sodium hyaluronate 3% (Hyalo complex): do not store above 30°C.
- Preservative-free cyclosporine 0.05% (Clacier): do not store above 30°C.
- Loteprednol 0.2% (Oftol forte): do not store above 30°C.
- Dexpanthenol 5.0% (Aquadran): do not store above 30°C.
- Balanced saline solution 0.9% (placebo): store at 2-8°C.
- PRGF: store at 2-8°C.

13. Adverse event reporting

All serious adverse events will be reported by the Principal Investigator within the first 24 hours after becoming aware of them, via email, to the sponsor and the Research Ethics Committee.

For each serious adverse event recorded, the principal investigator will prepare a follow-up report for submission to the Research Ethics Committee in order to evaluate its implications for the study risk-benefit relationship. In all follow-up reports, subjects will be identified only by their identification code.

Cases of adverse reaction will be reported to the Research Ethics Committee within a maximum of 7 days.

In the event of serious adverse events requiring emergency care outside regular hours, the referral hospital will be: Hospital Multimédica, Blvd Vista Hermosa 25-19, Zone 15, Guatemala, telephone 2231-8100.

13.1. Definitions of Adverse Events

Adverse Event	Any untoward medical occurrence in a subject who has been administered the study medication, including events that are not caused by or related to these products.
Adverse Reaction	Any untoward medical occurrence in a subject who has been administered the medication and that has a causal relationship to it, at any dose.
Serious Adverse Event	Any untoward medical occurrence in a subject who has been administered the study medication, including events that are not caused by or related to these products, and that may result in: Death Life-threatening event Disability Requires hospitalization or prolongation of existing hospitalization. Results in a congenital anomaly or birth defect
Serious Adverse Reaction	Any untoward medical occurrence in a subject who has been administered the medication, has a causal relationship to it at any dose, and may result in: Death Life-threatening event Disability Requires hospitalization or prolongation of existing hospitalization. Results in a congenital anomaly or birth defect

14. Causality Assessment

The relationship of each adverse event to the medication will be determined by a qualified ophthalmologist according to the following definitions:

Related: The adverse event follows a reasonable temporal sequence after administration of the medication. It cannot reasonably be attributed to any other cause.

Not Related: The adverse event is probably caused by the subject's clinical condition or by other treatments administered to the subject.

15. Procedures for reporting adverse events

All serious adverse events related to the surgical event or to the use of study medications will be reported by the principal investigator to the sponsor and the Research Ethics Committee according to severity. Serious adverse events will be reported within the first 24 hours after becoming known, and cases of adverse reaction within a maximum of 7 days.

For each serious adverse event or adverse reaction, the principal investigator will complete an adverse event report and follow up in order to evaluate the implications for the study risk-benefit relationship. In all adverse event reports and follow-up reports, subjects will be identified only by their identification code.

16. Statistical analysis

A superiority analysis will be performed. For the primary analysis, a linear regression model will be used to compare OSDI between groups at 4 weeks, including a covariate for the baseline OSDI value. Other continuous outcomes will be analyzed similarly. Binary outcomes will be analyzed using binary logistic regression models to compare each prevalence/risk between groups. Model assumptions will be checked for adequacy, and transformation of outcomes will be considered when indicated. Baseline characteristics will be presented by study arm. Subgroup analyses will be performed using linear regression models similar to those used for the primary analysis, with the addition of a term for subgroup and an interaction term between subgroup and treatment arm. In the event of missing data, the last recorded observation will be used. All analyses will follow the intention-to-treat principle, and each comparison of outcomes will be considered statistically significant at an alpha level of 0.05. Ninety-five percent confidence intervals will be reported for all outcomes. P values will be calculated using permutation methods with 10,000 replications. SPSS (Statistical Package for the Social Sciences, IBM SPSS Version 26, IBM Corp.) will be used for all analyses.

Recruitment is anticipated to be completed within a short period of time; therefore, no interim analyses have been specified.

17. Data management

17.1. Source Document

All documents will be stored securely in the study regulatory file with restricted access and under lock and key.

17.2. Data access and storage

Each investigator involved in the study will have exclusive access (personal username and password) only to the data collection form in the assigned program corresponding to their defined role within the study, thereby ensuring masking throughout the process.

The principal investigator will own and be responsible for the data generated in the study and will retain them in accordance with the internal regulations of the institution for 5 years. All data will be confidential so that the personal and family privacy of subjects participating in the study is not violated.

18. Quality control procedures

The study will be conducted in accordance with the approved protocol, following Good Clinical Practice guidelines and applicable local and international regulations.

19. Ethical and regulatory considerations

19.1. Declaration of Helsinki and Good Clinical Practice

This study will be conducted in accordance with the principles of the Declaration of Helsinki, the Good Clinical Practice standards, and the Regulations for the Conduct of Clinical Trials in Humans, Ministerial Agreement 206-2021 of the Ministry of Public Health and Social Assistance. The study has the approval of an Independent Ethics Committee.

19.2. Approvals

The protocol, Informed Consent, and any other document provided to the participating subject will be submitted to an Independent Ethics Committee for written approval.

19.3. Confidentiality

The study will comply with the General Data Protection Regulation (GDPR) and local law. Processing of participating subjects' personal data will be minimized by using the subject identification code in all study documents.

20. Costs and Benefits

The subject will not receive any compensation for participating in this study. Benefits of participation include the tests required for the diagnosis of dry eye, all medications needed during postoperative follow-up, and all consultations required through study completion, at no cost. Likewise, if necessary, the sponsor will cover food and transportation expenses for subjects who require them (provided that their place of residence is outside the capital city).

21. Finance and insurance

21.1. Funding:

Laboratorios Lansier

21.2. Insurance:

This study has civil liability insurance to cover all damages and losses directly arising from use of the investigational product in participating subjects, provided that they are a consequence of participation in the study.

22. Publication policy

The principal investigator and collaborators may use the data for scientific purposes once the study has ended. The sponsor authorizes the principal investigator and sub-investigators to publish scientific articles in medical journals and present the results at medical conferences, provided that participant confidentiality is maintained.

23. Intellectual property

The data generated in this study will be the property of the principal investigator

24. Archiving

Archiving and data management: the principal investigator will own and be responsible for the data generated in the study and will retain them in accordance with the internal regulations of the institution for 5 years. All data will be confidential.

All physical source documents, informed consent forms, and deviations related to the approved protocol will be recorded and archived in the study regulatory file, which will be kept under lock and key and accessible only to the principal investigator.

25. Budget

Pre- and post-treatment assessments performed in patients treated with PRGF.

	Unit cost	Number of patients	Total
Protocol approval by ethics committee			Q15,500.00
Keratograph M5 (Jenvis) pre-treatment	Q250.00	100	Q25,000.00
1 PRGF dropper	Q147.61	50	Q7380.50
Keratograph M5 (Jenvis) post-treatment	Q250.00	100	Q25,000.00
TOTAL			Q72,880.00

Human resources: Dr. Renato Papa, Dr. Daniela Chavarria, Lic. Magda Santos
Material resources: Computer. Slit lamp, fluorescein, Keratograph M5 (Jenvis), materials for PRGF preparation: laminar flow hood, heating block (incubator), variable-volume pipettes, pipette tips, light-blue blood collection tubes, 10 mL syringes, disposable No. 22 1 1/2 needles with Vacutainer system, calcium gluconate, screw-cap glass tubes, surgical gloves, sterile droppers.

26. References

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