

TISSUE REGENERATION IN THE POSTOPERATIVE PERIOD OF OROFACIAL HARMONIZATION PROCEDURES: APPLICATIONS OF PRP AND I-PRF

REGENERAÇÃO TECIDUAL NO PERÍODO PÓS-OPERATÓRIO DE PROCEDIMENTOS DE HARMONIZAÇÃO OROFACIAL: APLICAÇÕES DO PRP E I-PRF

REGENERACIÓN TISULAR EN EL PERÍODO POSOPERATORIO DE PROCEDIMIENTOS DE ARMONIZACIÓN OROFACIAL: APLICACIONES DE PRP E I-PRF

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ABSTRACT: Tissue regeneration and repair are fundamental stages of the postoperative period, particularly following Orofacial Harmonization (OFH) procedures, which may involve different degrees of tissue manipulation and trauma. Platelet-Rich Plasma (PRP) and injectable Platelet-Rich Fibrin (i-PRF) have attracted interest as autologous resources that may support tissue healing and recovery. This study aimed to analyze the scientific evidence regarding the use of PRP and i-PRF for tissue regeneration and repair during the postoperative period of OFH procedures. This descriptive and exploratory integrative literature review was based on studies published between 2021 and 2026 in Portuguese, English, and Spanish and indexed in PubMed/MEDLINE, Scopus, Web of Science, SciELO, and LILACS. The reviewed literature demonstrated biological plausibility and promising clinical findings, particularly in oral surgery, periodontal regeneration, tooth extraction, and facial rejuvenation. Reported outcomes included modulation of the inflammatory response, angiogenesis, cell proliferation, extracellular matrix remodeling, and potential improvements in pain, edema, and wound healing. However, substantial heterogeneity was observed in preparation methods, cellular composition, platelet concentration, application techniques, and outcome assessment. Evidence specifically addressing postoperative OFH remains limited. PRP and i-PRF may therefore represent useful autologous adjuncts, but higher-quality clinical studies and standardized protocols are required to establish their effectiveness, safety, and clinical applicability.

Keywords: Platelet-Rich Plasma. Injectable Platelet-Rich Fibrin. Orofacial Harmonization.

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RESUMO: A regeneração e a reparação tecidual são etapas fundamentais do período pós-operatório, especialmente após procedimentos de Harmonização Orofacial (HOF), que podem envolver diferentes graus de manipulação e trauma tecidual. Nesse contexto, o Plasma Rico em Plaquetas (PRP) e a Fibrina Rica em Plaquetas injetável (I-PRF) têm despertado interesse como recursos autólogos potencialmente capazes de auxiliar a cicatrização e a recuperação tecidual. Este estudo teve como objetivo analisar as evidências científicas sobre a utilização do PRP e do I-PRF na regeneração e reparação tecidual no período pós-operatório de procedimentos de HOF. Trata-se de uma revisão integrativa, descritiva e exploratória, baseada em estudos publicados entre 2021 e 2026, em português, inglês e espanhol, nas bases PubMed/MEDLINE, Scopus, Web of Science, SciELO e LILACS. Os estudos demonstraram plausibilidade biológica e achados clínicos promissores, sobretudo em cirurgia oral, regeneração periodontal, extrações dentárias e rejuvenescimento facial. Foram investigados efeitos relacionados à modulação inflamatória, angiogênese, proliferação celular, remodelamento da matriz extracelular, dor, edema e cicatrização. Entretanto, observaram-se diferenças nos métodos de preparo, composição, concentração celular, técnicas de aplicação e critérios de avaliação. A evidência especificamente voltada ao pós-operatório de HOF permanece limitada. Conclui-se que PRP e I-PRF apresentam potencial como adjuvantes autólogos, mas estudos clínicos mais robustos e protocolos padronizados ainda são necessários.

Palavras-chave: Plasma Rico em Plaquetas. Fibrina Rica em Plaquetas injetável. Harmonização Orofacial.

RESUMEN: La regeneración y la reparación tisular constituyen etapas fundamentales del período posoperatorio, especialmente después de procedimientos de Armonización Orofacial (HOF), que pueden implicar diferentes grados de manipulación y trauma tisular. El Plasma Rico en Plaquetas (PRP) y la Fibrina Rica en Plaquetas inyectable (i-PRF) han despertado interés como recursos autólogos potencialmente capaces de favorecer la cicatrización y la recuperación tisular. Este estudio tuvo como objetivo analizar la evidencia científica sobre el uso de PRP e i-PRF para la regeneración y reparación tisular durante el período posoperatorio de procedimientos de HOF. Se realizó una revisión integrativa, descriptiva y exploratoria de estudios publicados entre 2021 y 2026 en portugués, inglés y español, indexados en PubMed/MEDLINE, Scopus, Web of Science, SciELO y LILACS. La literatura analizada mostró plausibilidad biológica y resultados clínicos prometedores, especialmente en cirugía oral, regeneración periodontal, extracciones dentarias y rejuvenecimiento facial. Se investigaron efectos relacionados con la modulación de la respuesta inflamatoria, angiogénesis, proliferación celular, remodelación de la matriz extracelular y posibles beneficios sobre dolor, edema y cicatrización. Sin embargo, se observó una marcada heterogeneidad en los métodos de preparación, composición celular, concentración plaquetaria, técnicas de aplicación y criterios de evaluación. La evidencia específicamente relacionada con el período posoperatorio de la HOF sigue siendo limitada. Por lo tanto, el PRP y el i-PRF presentan potencial como adyuvantes autólogos, pero se requieren estudios clínicos más robustos y protocolos estandarizados.

Palabras clave: Plasma Rico en Plaquetas. Fibrina Rica en Plaquetas inyectable. Armonización Orofacial.

INTRODUCTION

Tissue regeneration and repair are fundamental components of postoperative recovery because they influence tissue restoration, healing quality, and the occurrence of complications. In Orofacial Harmonization, surgical and minimally invasive procedures may involve different degrees of tissue manipulation and trauma, making appropriate postoperative recovery an important clinical consideration.

Platelet-Rich Plasma (PRP) and injectable Platelet-Rich Fibrin (i-PRF) have attracted increasing interest as autologous approaches intended to support biological processes involved in tissue repair. The presence of platelets, fibrin, and biologically active mediators in these concentrates has been investigated in Dentistry, Oral and Maxillofacial Surgery, Regenerative Medicine, and Orofacial Harmonization.

Despite growing interest in these resources, the literature is heterogeneous with respect to collection methods, preparation protocols, component concentrations, application techniques, treatment frequency, and clinical and biological outcome measures. Such variability complicates the synthesis of evidence and the assessment of the applicability of these products in the postoperative setting of Orofacial Harmonization.

An integrative literature review is therefore relevant because it allows the available scientific knowledge to be gathered, organized, and critically analyzed, while identifying major findings, areas of agreement and disagreement, and gaps in the literature.

This study may contribute to the systematization of scientific knowledge regarding PRP and i-PRF and to a better understanding of their potential applications in tissue repair and regeneration after Orofacial Harmonization procedures. It may also help identify priorities for future clinical research aimed at establishing more consistent, evidence-based protocols.

The objective of this study was to analyze, through an integrative literature review, the scientific evidence regarding the use of PRP and i-PRF for tissue regeneration and repair during the postoperative period of Orofacial Harmonization procedures.

METHODS

This study used a descriptive and exploratory approach to analyze scientific evidence concerning the use of PRP and i-PRF for tissue regeneration and repair during the postoperative

period of Orofacial Harmonization procedures. The descriptive component characterized the principal applications, preparation protocols, and reported outcomes, whereas the exploratory component addressed insufficiently clarified aspects and gaps in the scientific literature.

The study was designed as an integrative literature review, a method that permits the inclusion and synthesis of evidence from different methodological designs. The review process comprised identification, selection, evaluation, and qualitative synthesis of publications addressing PRP and/or i-PRF in tissue regeneration, repair, or healing in orofacial contexts.

Scientific articles published from 2021 through 2026 were considered in order to capture contemporary evidence concerning platelet concentrates, regenerative medicine, wound healing, and autologous biomaterials in the orofacial field. Searches were conducted in PubMed/MEDLINE, Scopus, Web of Science, SciELO, and LILACS. Reference lists of relevant articles were also considered when they could identify additional studies not retrieved by the initial search strategy.

Eligible publications addressed the use of PRP and/or i-PRF in tissue regeneration, repair, or healing associated with the postoperative period of orofacial and Orofacial Harmonization procedures. Clinical studies, observational studies, experimental studies, randomized clinical trials, systematic reviews, and other scientific publications containing information relevant to the research question were considered. Duplicate records, publications unrelated to the guiding question, studies focused exclusively on non-orofacial applications, and reports lacking sufficient information for analysis were excluded.

Medical Subject Headings (MeSH) and Health Sciences Descriptors (DeCS) were used and combined with the Boolean operators AND and OR. Principal terms included “Platelet-Rich Plasma,” “PRP,” “Injectable Platelet-Rich Fibrin,” “i-PRF,” “tissue regeneration,” “tissue repair,” “wound healing,” “postoperative healing,” “orofacial surgery,” “oral surgery,” “facial surgery,” “Orofacial Harmonization,” and “regenerative medicine,” together with their Portuguese equivalents. Search strategies included combinations such as “Platelet-Rich Plasma” AND “tissue regeneration,” “Injectable Platelet-Rich Fibrin” AND “wound healing,” “PRP” AND “orofacial surgery,” “i-PRF” AND “postoperative healing,” and “platelet-rich fibrin” AND “tissue repair.” Strategies were adapted to the characteristics of each database.

Retrieved studies were initially screened by title and abstract, followed by full-text assessment of potentially eligible publications. Selected studies were organized using a data-

extraction framework containing author, publication year, country, study design, population or sample, procedure, platelet concentrate used, preparation and application protocol, assessed outcomes, and principal findings. Data were analyzed qualitatively and descriptively, with attention to wound healing, tissue regeneration, inflammatory response, edema, pain, quality of repaired tissue, postoperative recovery, and complications.

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) recommendations were considered as a reporting reference for transparency in the identification, screening, eligibility, and inclusion stages. Publications in Portuguese, English, and Spanish were considered to broaden the geographic and linguistic scope of the review.

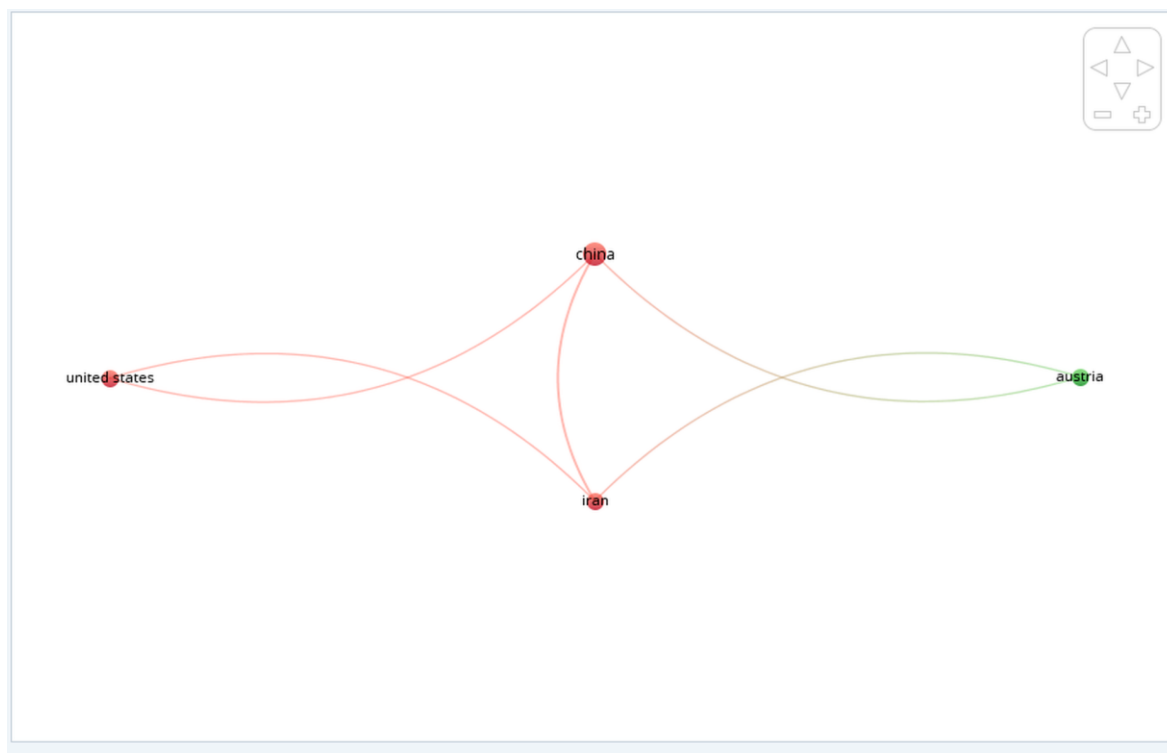
Bibliometric analysis was also performed using VOSviewer to map country relationships and visualize research patterns. Data from indexing sources, including Scopus and Web of Science, were processed in VOSviewer to generate network maps and identify relationships among the publications. The present article reports the country-level network identified in the dataset (Figure 1).

Because this study was based exclusively on published scientific literature and did not involve direct human or animal intervention or primary data collection, no direct participation of human subjects occurred. Accordingly, ethics committee approval was not required for this literature review. Scientific integrity, appropriate citation, fidelity to the reported findings, and copyright principles were observed throughout the study.

RESULTS AND DISCUSSION

The country-level co-occurrence analysis performed with VOSviewer identified four countries in the analyzed publication set: China, Iran, the United States, and Austria. The bibliometric network comprised five links, with a total link strength of 6. China occupied a central position in the graphical representation and was connected with different countries in the network, while the United States, Iran, and Austria also participated in the identified relationships. The network configuration indicates an international distribution of scientific production concerning PRP and i-PRF and reflects contributions from different geographic contexts to research on these autologous concentrates and their applications in tissue regeneration and repair (Figure 1).

Figure 1 – Network of relationships among countries identified in the literature on PRP and i-PRF.



Source: Prepared by the authors using VOSviewer based on the study dataset (2026).

The recent literature indicates substantial scientific interest in autologous platelet concentrates, particularly PRP and i-PRF, because of their potential role in tissue regeneration and repair. However, publications from the last five years show considerable heterogeneity in clinical indications, preparation methods, cellular composition, application techniques, and assessed outcomes. This variability must be considered when interpreting the findings and extrapolating them to Orofacial Harmonization procedures (EGIERSKA D, et al., 2023; FARSHIDFAR N, et al., 2025).

The biological mechanisms associated with PRP are mainly related to platelets and the release of mediators involved in tissue repair. A 2025 systematic review described PRP as an autologous product containing biologically active factors, including platelet-derived growth factor (PDGF), vascular endothelial growth factor (VEGF), and transforming growth factor-beta (TGF- β), which are associated with soft-tissue repair and osteogenesis. These mechanisms provide a biological rationale for the use of PRP as an adjunct in different surgical procedures (GIANNELLI A, et al., 2025).

In oral surgery, Giannelli et al. (2025) identified studies involving PRP in implant surgery, third-molar extraction, regenerative procedures, periodontal surgery, and alveolar ridge augmentation. The authors reported that PRP has been investigated with the aim of improving soft- and hard-tissue regeneration, although outcomes vary according to the procedure and preparation protocol (GIANNELLI A, et al., 2025).

This diversity of applications is particularly relevant to Orofacial Harmonization because orofacial procedures may involve skin, subcutaneous tissue, connective tissue, muscle, and bone. Nevertheless, a substantial proportion of the recent clinical evidence on PRP and PRF originates from oral surgery, aesthetic dermatology, and regenerative medicine rather than from the specific postoperative setting of OFH. Therefore, extrapolation should be undertaken cautiously (EGIERSKA D, et al., 2023; GIANNELLI A, et al., 2025).

With respect to i-PRF, recent literature emphasizes its initially liquid consistency, which permits injection and use in different regenerative contexts. Miron et al. (2024), in a review covering a decade of i-PRF development, discussed its evolution and applications in periodontology, implant dentistry, and tissue regeneration, demonstrating increasing scientific interest in this platelet concentrate (MIRON RJ, et al., 2024).

Comparison between PRP and i-PRF has also received attention. Farshidfar et al. (2025), in a systematic review across medical fields, identified experimental and clinical evidence suggesting differences in platelet concentration and in the release profile of selected growth factors between i-PRF and PRP. However, the authors emphasized that the clinical relevance of these differences depends on the tissue studied, preparation protocol, and clinical indication (FARSHIDFAR N, et al., 2025).

Preparation standardization is a major determinant of comparability. Muthu et al. (2022) evaluated a double-spin PRP preparation protocol and reported platelet recovery of 86%–99%, with an approximately sixfold increase over baseline under the tested conditions. These findings demonstrate that a relatively consistent concentrate can be produced under a defined protocol, while also illustrating how centrifugation parameters may influence the final product (MUTHU S, et al., 2022).

Patient-related characteristics may also influence the final PRP composition. Rossi et al. (2023), in a prospective registry involving 403 PRP injections from 357 patients, reported that final platelet concentration was significantly influenced by baseline platelet count and patient

age. This finding indicates that patients subjected to the same preparation protocol may not necessarily receive biologically identical products, an important source of variability for clinical research and interpretation of outcomes (ROSSI L, et al., 2023).

A systematic review of PRP in medical and surgical specialties likewise identified substantial variability in centrifugation methods, platelet concentrations, and application techniques. The authors emphasized the need for more consistent characterization and quality-control criteria for the products used clinically (RAHMAN E, et al., 2024).

In facial aesthetics, the available evidence suggests potentially favorable effects of PRP, although methodological limitations remain. Systematic reviews have reported improvements in selected parameters related to facial appearance, skin quality, and signs of cutaneous aging, while emphasizing substantial differences among preparation and application protocols (GENTILE P and GARCOVICH S, 2023; CRUCIANI M, et al., 2024).

Gentile and Garcovich (2023), in a systematic review of PRP for facial rejuvenation, analyzed clinical studies of aesthetic applications. Overall, the findings suggested potential benefits for selected signs of skin aging, but substantial heterogeneity was identified in treatment protocols and outcome assessment (GENTILE P and GARCOVICH S, 2023).

Neiva-Sousa et al. (2023) similarly emphasized that the interpretation of facial rejuvenation outcomes should account for variability in study design, preparation methods, and clinical assessment. More recent overviews have likewise stressed the need to interpret reported aesthetic benefits in light of the quality and heterogeneity of the primary evidence (NEIVA-SOUSA M, et al., 2023; CRUCIANI M, et al., 2024).

For i-PRF, Mohale et al. (2024) conducted a systematic review that included seven studies and 130 patients, four of which addressed facial rejuvenation. The included studies reported moderate to marked improvements in parameters such as skin texture and elasticity and reductions in facial wrinkles and lines in selected settings (MOHALE SA, et al., 2024).

Despite these findings, Mohale et al. (2024) emphasized the limited number of available studies and the need for larger samples, control groups, and longer follow-up. This limitation is particularly relevant to OFH because findings from facial rejuvenation do not necessarily constitute direct evidence of i-PRF effectiveness for postoperative recovery after surgical procedures (MOHALE SA, et al., 2024).

Qin et al. (2025) conducted a systematic review specifically addressing PRP and PRF in facial rejuvenation. Twenty studies involving 514 patients were included; wrinkles and fine lines were the most frequently investigated outcomes, followed by dyschromia, texture, elasticity, skin thickness, and hydration. These findings indicate that clinical research on PRP and PRF in facial aesthetics is becoming broader and more diversified (QIN N, et al., 2025).

However, Qin et al. (2025) also found that results were not uniform across studies. The available evidence varied in quality and outcome assessment methods, indicating that positive findings for selected parameters do not necessarily establish consistent clinical effectiveness across all aspects of facial aging (QIN N, et al., 2025).

A double-blind randomized split-face clinical trial published in 2024 compared PRP with platelet-poor plasma for facial photoaging. Both interventions produced improvement in selected aesthetic assessment scales, while no statistically significant between-group difference was found for some evaluated parameters. This finding indicates that benefits specifically attributable to platelet concentration require controlled studies and objective outcomes (TSAI YW, et al., 2024).

In the postoperative setting, evidence from oral surgery is particularly relevant because it directly involves orofacial tissues subjected to surgical trauma. Egierska et al. (2023) described applications of PRP and PRF following third-molar extraction, in alveolar osteitis, and in implant-related procedures, demonstrating that platelet concentrates have been investigated as adjuncts to surgical recovery (EGIERSKA D, et al., 2023).

Evidence concerning PRF after third-molar surgery has expanded in recent years. Ye et al. (2024), in a systematic review and meta-analysis, evaluated the effects of PRF on recovery after third-molar removal, including outcomes related to alveolar bone healing (YE L, et al., 2024).

Yang et al. (2024) conducted an umbrella review of systematic reviews and meta-analyses concerning PRF after mandibular third-molar extraction. The existence of this body of secondary evidence indicates substantial research activity in this clinical context, although differences among PRF types and preparation protocols persist (YANG H, et al., 2024).

A randomized split-mouth clinical trial published in 2024 evaluated PRF after third-molar extraction by comparing sockets treated with PRF clots with conventional controls, with postoperative edema among the principal outcomes. This design reduces part of the

interindividual variability and allows a more controlled treatment comparison (ZWITTNIG K, et al., 2024).

Different platelet-fibrin formulations have also been investigated. Praganta et al. (2024) evaluated advanced platelet-rich fibrin (A-PRF) in patients undergoing third-molar surgery, focusing primarily on postoperative pain and swelling. These outcomes demonstrate that assessment of recovery should not be restricted to histological regeneration but should also include clinically meaningful patient outcomes (PRAGANTA J, et al., 2024).

Pattnayak et al. (2024) systematically reviewed the effects of PRP and PRF in mandibular third-molar extraction. The simultaneous assessment of the two modalities is relevant because different concentrates may be investigated for similar objectives, although they are not biologically equivalent products (PATTNAYAK A, et al., 2024).

The relationship between platelet concentrates and bone regeneration has also been investigated in a randomized clinical trial involving i-PRF and alveolar ridge preservation. Abaza et al. (2024) compared i-PRF with hyaluronic acid combined with bovine-derived xenograft using clinical and histomorphometric assessments. Histological evaluation provides structural information that cannot be obtained from clinical perception alone (ABAZA G, et al., 2024).

Recent literature has also examined combinations of PRF with other therapeutic resources. Bilginaylar et al. (2025) investigated PRF as a local antibiotic-delivery system in impacted mandibular third-molar surgery, combining the biomaterial properties of PRF with a local drug-delivery strategy. This approach illustrates that platelet concentrates may be investigated not only as regenerative agents but also as matrices for additional therapeutic applications (BILGINAYLAR K, et al., 2025).

Evidence from wound management also supports the biological rationale for PRP. Meznerics et al. (2022) conducted a systematic review and meta-analysis of randomized clinical trials and identified 29 trials involving 2,198 wounds; the pooled analysis showed higher odds of complete wound closure with PRP than with conventional treatment. Although these findings are not specific to OFH, they provide additional clinical evidence concerning PRP-associated wound healing (MEZNERICS FA, et al., 2022).

Another systematic review and meta-analysis evaluated PRP in chronic wounds and vitiligo. In diabetic ulcers, the authors reported increased complete-healing rates, greater

percentages of healed wound area, and reduced time to complete healing; the analysis also indicated that the source and preparation method of PRP influenced outcomes, reinforcing the importance of standardization (WANG Z, et al., 2023).

These findings are relevant to OFH because postoperative tissue recovery involves biological mechanisms also observed in other wound-healing processes, including hemostasis, inflammation, cell proliferation, angiogenesis, extracellular matrix formation, and remodeling. Nevertheless, differences in wound type, tissue characteristics, and clinical conditions prevent direct transfer of findings from chronic wounds to aesthetic or facial surgical procedures (GIANNELLI A, et al., 2025; MEZNERICS FA, et al., 2022).

An important issue identified in the literature is the distinction between biological plausibility and demonstrated clinical benefit. The presence of growth factors and biologically plausible cellular effects does not necessarily mean that all patients undergoing OFH will experience measurable clinical improvement. Recent reviews of facial rejuvenation illustrate the distinction between mechanistic plausibility, experimental findings, and clinical evidence (QIN N, et al., 2025; CRUCIANI M, et al., 2024).

Safety is another essential component of evaluation. Recent reviews of PRP and PRF in facial aesthetics generally describe a favorable safety profile in the analyzed studies; however, the relatively small sample sizes of many studies and the heterogeneity of protocols limit definitive conclusions regarding rare or long-term adverse events (MOHALE SA, et al., 2024; QIN N, et al., 2025).

Methodological quality is an additional limitation. A substantial portion of the literature on i-PRF in facial rejuvenation consists of prospective studies, case series, and observational investigations, whereas randomized controlled trials remain less numerous. This distribution of study designs limits causal inference and reinforces the need for adequately controlled research (MOHALE SA, et al., 2024).

Protocol standardization is therefore one of the main needs identified by this review. Differences in centrifugation speed and duration, blood volume, commercial systems, use or absence of anticoagulants, platelet concentration, and leukocyte content can result in biologically different products. Consequently, studies using the terms “PRP” or “i-PRF” without adequately characterizing the product may not be directly comparable (MUTHU S, et al., 2022; RAHMAN E, et al., 2024).

Within the specific context of Orofacial Harmonization, the available findings should therefore be interpreted as evidence of potential application rather than definitive proof of effectiveness for all postoperative procedures. Evidence is more established in oral surgery, periodontal regeneration, third-molar extraction, and facial rejuvenation, whereas studies directly investigating PRP and i-PRF as adjuncts after specific OFH surgical procedures remain relatively limited (EGIERSKA D, et al., 2023; GIANNELLI A, et al., 2025; QIN N, et al., 2025).

Overall, the evidence synthesized in this review indicates biological plausibility and promising clinical findings for PRP and i-PRF in different regenerative contexts, but the magnitude of benefit appears to depend on the indication, treated tissue, preparation protocol, application technique, and outcome measures. This is clinically relevant because positive results obtained in one procedure should not automatically be generalized to other interventions (FARSHIDFAR N, et al., 2025; CRUCIANI M, et al., 2024).

Finally, the findings support the need for further randomized controlled trials with larger samples, longer follow-up, appropriate control groups, and clearly described protocols. Future studies specifically addressing OFH procedures should prespecify clinically relevant outcomes, standardize concentrate preparation and application, and, whenever feasible, combine clinical and photographic assessment with ultrasonographic or histological evaluation. Such approaches may clarify the circumstances in which PRP and i-PRF contribute meaningfully to postoperative recovery and which applications have the strongest evidentiary support (MOHALE SA, et al., 2024; QIN N, et al., 2025; GIANNELLI A, et al., 2025).

CONCLUSION

This integrative literature review identified PRP and i-PRF as autologous resources with potential adjunctive roles in tissue repair and regeneration. The reviewed studies describe biological mechanisms involving growth-factor release, modulation of inflammatory responses, angiogenesis, cell proliferation, and extracellular matrix remodeling. In the orofacial field, recent evidence indicates favorable findings in selected surgical procedures and facial rejuvenation applications, although the magnitude of reported effects varies according to clinical indication and protocol.

Despite these promising findings, the available evidence is not sufficiently homogeneous to establish universal protocols for PRP or i-PRF use in the postoperative

management of Orofacial Harmonization procedures. Differences in blood collection and centrifugation, platelet and leukocyte concentrations, product composition, application techniques, treatment frequency, and outcome assessment hinder direct comparison across studies. Moreover, a substantial proportion of the available evidence derives from oral surgery, periodontology, and aesthetic dermatology, requiring caution when extrapolating findings to specific OFH procedures.

PRP and i-PRF may therefore be considered resources of scientific and clinical interest for tissue recovery and regeneration in orofacial practice, but their use should be guided by the available evidence, individual patient characteristics, and the specific clinical indication. Further randomized controlled trials with larger samples, longer follow-up, appropriate control groups, and standardized preparation and application protocols are required, particularly for surgical OFH procedures. More robust clinical evidence may clarify the effectiveness, safety, and clinical applicability of these platelet concentrates in postoperative care.

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