

Evolution of mucogingival surgery to periodontal plastic surgery



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As we navigate the evolving landscape of periodontal treatment, it is both an honour and a privilege for us as periodontists to reflect on the transformation of mucogingival surgery into what we now recognize as periodontal plastic surgery. Additionally, the term Periodontal Plastic Surgery aids in the patients to understand what exactly the procedure is to be performed, for the patient has no understanding of what the term Mucogingival surgery means. This evolution not only underscores the advancements in our clinical techniques but also highlights our commitment to improving patient outcomes through enhanced aesthetic and functional results.

HISTORICAL CONTEXT AND EVOLUTION

Mucogingival surgery initially focused on addressing the challenges associated with gingival recession and periodontal defects.^[1] Early techniques, such as the lateral pedicle flap and free gingival grafts, laid the groundwork for what would evolve into more refined surgical approaches.^[2] The transition to periodontal plastic surgery has introduced a broader scope, integrating aesthetic considerations with restorative dentistry. Techniques like the coronally positioned flap and tunnel techniques exemplify this shift, demonstrating our evolving understanding of the biophysics of periodontal tissues.^[1,2]

SCIENTIFIC FOUNDATIONS AND INNOVATIONS

Recent studies have provided insights into the biological mechanisms underlying periodontal plastic surgery, revealing the critical role of growth factors and tissue engineering in enhancing healing and regeneration.^[3] The integration of materials science has also introduced innovative biomaterials, such as collagen matrices, that facilitate superior soft tissue outcomes.^[4] These advances align with Sustainable Development Goals (SDGs), particularly Goal 3, that emphasizes

good health and well-being, ensuring equitable access to quality care.

PERIODONTAL SCIENCE AND THE CONTRIBUTIONS OF DR. P. D. MILLER

The evolution of periodontal science has been significantly influenced by pioneers like Dr. P. D. Miller, who coined the term “periodontal plastic surgery”.^[5] His work has laid the foundation for understanding the complexities of this field, particularly through his classification of mucogingival deformities, which provides a framework for diagnosis and treatment planning.^[6] Dr. Miller's contributions to the development of surgical techniques, including the use of connective tissue grafts, have been instrumental in enhancing the predictability of outcomes in aesthetic procedures.^[7]

AESTHETIC CONSIDERATIONS AND PATIENT-CENTERED CARE

As we expand our scope, the aesthetic component of periodontal treatment cannot be overlooked. The demand for procedures that enhance not only periodontal health but also the esthetics of the smile has led to the development of techniques that prioritize patient satisfaction.^[8] The emphasis on minimally invasive procedures aligns with SDG 9, which advocates for innovation and sustainable practices in healthcare.

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CONCLUSION AND FUTURE DIRECTIONS

Looking forward, the field of periodontal plastic surgery holds immense potential for further innovation, especially in the field of Dental Implants. As we continue to refine our techniques and integrate new technologies, we must remain steadfast in our commitment to education and research, ensuring that we provide the highest standard of care for our patients. To me, the greatest challenge is making patients aware that periodontal plastic surgical procedures are freely available and promoting this concept.

“As my tenure as President of the Indian Society of Periodontology comes to a close this October 2024, I would like to express my heartfelt gratitude to the dedicated members who have supported me throughout this journey.

I extend my sincere appreciation to:

- Dr. Ashish Jain, Secretary-Indian Society of Periodontology
- Dr. Harpreet Singh Grover, President Elect-Indian Society of Periodontology
- Dr. Abhay Kolte, Immediate Past President-Indian Society of Periodontology
- Dr. Baljeet Singh, Editor-Journal of Indian Society of Periodontology
- All Executive Committee Members
- All Life Members of the Society.

Thank you for your cooperation, guidance, and unwavering support. I have every confidence that our Society will continue to make a profound impact in the field of Periodontology for the generations to come.

Grateful, farewell and Best Wishes!

Dharmarajan Gopalakrishnan

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