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ABOUT THE JOURNAL

The Journal of Prosthetic rehabilitation is a peer reviewed open access e-journal published on behalf of Indian Prosthodontic Society, Nagpur Branch. Articles on Complete Denture Prosthodontics, Removable Partial Denture Prosthodontics, Fixed Partial Denture Prosthodontics, Implantology, Maxillofacial Prosthodontics, Occlusion, Aesthetics and Materials used in Prosthodontics will be published in this journal. Journal will be published in January and June of every year.

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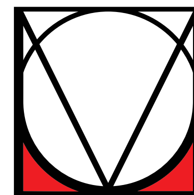

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REHABILITATION

CONTENTS

FROM THE EDITORS DESK 1

Dr. Rajlakshmi Banerjee

GUEST EDITORIAL 2

Prof Dr. J. R. Patel

ORIGINAL RESEARCH

Evaluation of various components affecting dento-facial esthetics in young Indian population- *A cross-sectional* Study 5

Varunraj Jadhav, Tushar Mowade, Priya Gupta, Saee Deshpande

Instructions for Authors 58

Copyright Form 63

FROM THE EDITOR'S DESK

DR. RAJLAKSHMI BANERJEE

It gives me immense pleasure to come up with the 2nd issue of the IPS Nagpur branch, **'The Journal of Prosthetic Rehabilitation'**. The Journal as always remains committed to providing a platform for the postgraduate students and faculty to publish their work and aims to cover all spheres in the subject of Prosthodontics. This issue is also special as we are gearing up for the 48th IPS National first ever Virtual conference in the history of Indian Prosthodontic society and look forward to cooperation from all of you. We are also coming up with a webinar series from the 3rd to 17th of August as a kickstart of our conference preparations. Kindly join us in the enriching scientific experience.

Jai Hind!

Minimally Invasive Esthetic Options & Procedures in Prosthodontics

PROFESSOR (DR.) J. R. PATEL

Principal & Faculty Dean of Narsinhbhai Patel Dental College & Hospital, Faculty Dean of Nootan College of Nursing & Nootan Physiotherapy College of Sankalchand Patel University, Gujarat. President of Indian Prosthodontic Society, Head Office, President-Elect of Indian Dental Association, Gujarat State Branch.

Minimally invasive treatment options have become increasingly feasible in Prosthodontics, due to the introduction of the adhesive technique in combination with restorative materials featuring translucent properties similar to those of natural teeth.Because of this, conservative treatments those are able to modify the shape, size, and color of the teeth and provide the result, which the patient expects, should always be the first therapeutic option.Various conservative options to preserve the available tooth structure are mentioned here.

1. Bleaching procedure: The lightening of the color of a tooth through the application of a chemical agent to oxidize the organic pigmentation in the tooth is referred as bleaching. It is classified as Nonvital bleaching procedures & Vital bleaching procedures.
2. Microabrasion: It involves the physical removal of tooth structure.In this procedure 11% HCL + Silicone carbide particles are used.It can remove discoloration up to 0.2-0.3 mm.
3. Macroabrasion:An alternative technique to microabrasion for removal of localized, superficial white spots and other surface stains or defects is called macroabrasion.It is done with 12-fluted composite finishing bur in a high speed handpiece with adequate water spray.
4. LaminateVeneers: A veneer is a layer of tooth-colored material that is applied to a tooth to restore localized or generalized defects and intrinsic discolorations.Common indications for veneers are tooth malformation, discoloured teeth, abraded teeth and faulty restorations.Mainly it is classified as Partial veneers & Full veneers. According to mode of fabrication classified as direct veneers and indirect veneers.Over the years there have been various advancements in laminates and veneers in dentistry. The recent advancements are:

   a) Stacked/Feldspathic Teeth Veneers: These veneers contain many stacks of porcelain giving rise to multiple layers in the veneer. of these feldspar veneers is that they are not strong due to their low mechanical properties as the flexural strength is from 60-70 MPA. The feldspars contain fluoroapatite crystals improving the optical appearance of the tooth.It has a polychromatic appearance and high translucency, hence closely resembles the natural tooth.

   b) Thick Monochromatic Teeth Veneers: These are usually thicker than the normal veneers, hence contributing to its strength and durability. They

are present in one colour and can be customised according to the patient's preference.

c) Lithium disilicate veneers: They are the most widely used true glass ceramics. It is versatile and is stronger than other porcelain veneers. It has a high flexural strength and available in a variety of shades. It has high resistance to thermal shock thus managing the problem between two similar materials. It is used for teeth which require minimal reshaping.

d) Minimally Invasive Veneers or No-prep Veneers:These veneers are ultrathin having a thickness similar to contact lenses of about 0.3-0.5 mm and hence get are called "contact lenses of teeth". They consist of lumineers, durathin veneers and vivaneers.

Lumineers: They are exceptionally thin veneers (0.3mm) made of a special cerinate porcelain. They can be easily placed with minimal invasion and pain. They have high strength and resilience despite being exceptionally thin.

Durathin Veneers: These veneers are exceptionally thin and are about 0.2 mm whereas the traditional veneers are usually about 0.5 mm thick. These veneers have gained popularity due to its good esthetic effects as it gives a natural translucency to the teeth closely resembling natural teeth.

Vivaneers: These are extra tough veneers with a thickness of about 0.3 mm and hence need a minimal thickness of about 0.3 mm.They are manufactured in Glidewell laboratories.

e)MAC veneers (Microadvanced Cosmetic Division veneers): They are pressed ceramic veneers. They are manufactured in Microdental laboratories. They have high strength and are denser than other veneers. They are a bit thicker when compared to other veneers which ensure that these veneers can firmly adhere to the tooth surface and are not displaced from the teeth.

f) Da Vinci veneers: They are high quality, ultra thin veneers. These porcelain veneers are hand crafted and are of tooth colored ceramics. They have fluorescent porcelain that enhances the aesthetic quality and the strength of the veneer. They have the ability to resist stains.

g) Zirconia veneers: Zirconia is a polycrystalline ceramic which is acid resistant with no amorphous silica which does not react to traditional glass etching treatments. Zirconia veneers have excellent aesthetics. It is a versatile material. They are high strength materials having fluxural strength of 1000 MPa.

5. Resin bonded fixed dental prosthesis:It is a prosthesis that is luted to tooth structure, primarily enamel, which has been etched to provide mechanical retention for resin cement.

1 Evolution of resin bonded Fixed partial dentures

a) Bonded pontic

b) Cast perforated resin retained FPD's (Rochettebridge) Use of ring like retainers, with funnel shaped perforations through them to enhance resin retention.

c) Etched cast resin retained FPD's (Maryland bridge): Bridge retention has been enhanced by the development of resin cements which bond chemically to both the tooth surface and the etched metal alloy. It provides micro mechanical retention.

d) Macroscopic mechanical retention resin retained FPD's (Virginia bridge)

- Salt crystals (150 to 250 μm) were incorporated into wax and removed in solution leaving cubic retentive pits
- Produces roughness on the inner surface of the retainer
- This was a time saving method and more retention is achieved compared to the technique of etching

e) Cast mesh FPD's

f) Chemical bonding resin retained FPD's

g) Fiber reinforced composite resin FPD's

- Fiber-reinforced composite restorations are resin-based restorations containing fibers aimed at enhancing their physical properties.

6. Everstick crown & Bridges:

- With GC everstick C&B we can prepare composite bridges reinforced with fiber in one single visit, using a reversible and minimally invasive technique.
- Mainly indicated in hybrid bridges, temporary bridges, immediate bridges, surface retained bridges.

Articles

Instructions for Authors

Please read the following instructions carefully and follow them stringently. Submissions not complying with these instructions will not be considered.

The Editorial Process: Manuscripts that are found suitable for publication in journal of prosthetic dentistry are sent to two or more expert reviewers. The journal follows a double-blind review process, wherein the reviewers and authors are unaware of each other's identity. Every manuscript is also assigned to a member of the editorial team, who based on the comments from the reviewers takes a final decision on the manuscript. The comments and suggestions (acceptance/ rejection/amendments in manuscript) received from reviewers are conveyed to the corresponding author. If required, the author is requested to provide a point by point response to reviewers' comments and submit a revised version of the manuscript. This process is repeated till reviewers and editors are satisfied with the manuscript. Manuscripts accepted for publication are copy edited for grammar, punctuation, print style, and format. Page proofs are sent to the corresponding author. The corresponding author is expected to return the corrected proofs within maximum two days. It may not be possible to incorporate corrections received after that period. The whole process of submission of the manuscript to final decision and sending and receiving proofs is completed by email.

Authorship Criteria: Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content. One or more authors should take responsibility for the integrity of the work as a whole, from inception to published article. Authorship credit should be based on the i. sizeable contributions to conception or design of the work, or the acquisition, analysis, or interpretation of data for the work; ii. Drafting of the work or revising it critically for important intellectual content; iii. Final approval of the version to be published; iv. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Each author should be accountable for the parts of the work he or she has done. In addition, each author should be able to identify which coauthors are responsible for specific other parts of the work and should have confidence in the integrity of the contributions of any coauthors.

All those designated as authors should meet all 4 criteria for authorship, and all who meet the 4 criteria should be identified as authors. Those who do not meet all 4 criteria should be acknowledged.

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Submission of Contributions: All submissions and correspondence should be addressed to the Editor, Journal Of Prosthetic Dentistry, VSPM Dental College & Research Centre, Digdoh Hills, Hingna Road, Nagpur, 440019. All articles submitted for publication are meant exclusively for publication in this journal and must be accompanied by duty filled copyright form and contributors form and if editors require ethical committee approval form to be sent to ipsnagpureditor@gmail.com.

Conflict of interests: All vested interests must be declared by all the authors eg. Money received directly or indirectly for the study or for its presentation from all sources including commercial/ pharmaceutical companies, and including gifts, travel perks, hospitality etc.

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1) Manuscripts must be submitted in precise, unambiguous, concise and easy to read English.
2) The number of authors should not exceed six for original research, 4 for review and case report.

Manuscripts should be submitted by email to ipsnagpureditor@gmail.com along with duty filled signed and scanned copyright form. They should be typed in font: times new roman and in font size: 12, only on one side of the A4 size paper with double spacing (space between two lines not less than 6 mm) and at least 2.5 cm margin on all sides.

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Case report: Up to 1000 words (excluding abstract of 150 words and a maximum of 10 references).

Review article: Up to 4000 words (excluding abstract of 250 words and a maximum of 70 references).

Title page on a separate sheet of paper and should included.

a. Title of the article.

b. Names and designations and emails of all authors.

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d. The name, address, telephone and fax numbers and e-mail address of the corresponding author.

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Introduction should define the reason for the study, the nature of the problem, and its relation to previous work, quoting the references by numbers within brackets in the order in which they are cited. Materials and Methods should contain sources of special chemicals, kits, animals, case material and all the actual methods employed briefly with references. Use generic names with the trade name in parenthesis. All measurements must be in metric units and temperature in degrees Celsius. Use only standard abbreviations, symbols and acronyms that are universally accepted.

Ethics: All research study should confirm to ethical principles as laid down in the Helsinki declaration and it should be explicitly stated if permission of an IRB / human or animal ethics committee was taken.

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Results: Present the results in logical sequence using appropriate, tables and figures without duplication. Results must include statistical analysis when ever applicable.

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