

Journal of Prosthodontic Research Instructions for Authors

The Journal of Prosthodontic Research (JPR) is a fully open-access journal published quarterly under the supervision of the JPR Editorial Committee of the Japan Prosthodontic Society. The journal aims to foster the advancement of prosthodontic research/practice and contribute to the development of a global prosthodontic society by publishing and communicating excellent scientific content. Contributions should be concerned with prosthodontics and/or related fields.

The most targeted topics are as follows:

- 1) Clinical Epidemiology and Prosthodontics
- 2) Fixed/Removable Prosthodontics
- 3) Oral Implantology
- 4) Geriatric Dentistry
- 5) Dental Materials / Adhesive Dentistry / Aesthetic Dentistry
- 6) Digital Dentistry
- 7) Oral Physiology and Biomechanics
(Masticating and Swallowing Function, Parafunction, e.g., bruxism)
- 8) Orofacial Pain and Temporomandibular Disorders (TMDs)
- 9) Maxillofacial Prosthodontics and Dysphagia Rehabilitation
- 10) Prosthodontic-related Biosciences
(Regenerative Medicine, Bone Biology, Mechanobiology, Microbiology/Immunology)

JPR will consider materials that were prepared and submitted according to the following instructions: The submitted papers are subject to peer review. Papers will be evaluated by at least two anonymous reviewers who are either members of the Editorial Board or qualified invited referees. However, we reserve the right to make any necessary changes to ensure that the contribution conforms to the journal's editorial standards, as deemed by the Editorial Board based on the reviewers' recommendations.

Articles must fall under one of the following categories: review, original article, case report, letter to the editor, or technical procedure, and not have been previously published or under consideration for publication elsewhere. The Editorial Board does not accept responsibility for the opinions or ethics expressed by the contributors.

Manuscripts should generally be prepared according to the guidelines by the International Committee of Medical Journal Editors: Uniform Requirements for Manuscripts Submitted to Biomedical Journals (Updated December 2021). Additional information is available at www.icmje.org.

ARTICLE TYPES

Article Description	Abstract	Page Limit	Word Limit	Tables/Figures	References
Review <ul style="list-style-type: none"> Introduction and summary on a targeted topic on prosthodontics Correctly introducing the background subject area and outcomes of past research 	Study selection Results Conclusion ≤ 250 words Summary Boxes (≤ 350 characters each) <ul style="list-style-type: none"> What is already known What this review adds 	≤ 8 printed pages	No Limits	No Limits *Systematic review and meta-analysis: submit a completed PRISMA 2020 checklist.	No Limits *Special attention shall be paid to the selection of reference literature.
Original article <ul style="list-style-type: none"> With high novelty leading to objective conclusions To scientifically contribute to the development of prosthodontics 	Purpose Methods Results Conclusions ≤ 250 words Summary Boxes (≤ 350 characters each) <ul style="list-style-type: none"> What is already known What this study adds 	≤ 10 printed pages	No Limits	No Limits *Randomized controlled trials: submit a completed CONSORT 2010 flow diagram. *Observational studies: submit a STROBE statement.	No Limits
Case report <ul style="list-style-type: none"> Proposals for the modification of diagnostic and/or treatment methods, and treatment skills Rare case examples, unexpected complications, or disease progression 	Patients Discussion Conclusions ≤ 250 words Summary Boxes (≤ 350 characters each) <ul style="list-style-type: none"> What is already known What this report adds 	≤ 6 printed pages	No Limits *Should be concretely and concisely described.	No Limits	No Limits
Technical procedure <ul style="list-style-type: none"> Introduction of new clinical operation method, research method, and used methods or materials Novel effectiveness of treatment, long-term stability, or superior performance of equipment Not for the introduction of new products or mere technical information 	Purpose Methods Conclusions ≤ 250 words Summary Boxes (≤ 350 characters each) <ul style="list-style-type: none"> What is already known What this procedure adds 	≤ 6 printed pages	No Limits	No Limits	No Limits
Letter to the Editor <ul style="list-style-type: none"> Brief report of research findings with special interest to the JPR readers May not cover standard research, but that is of general interest to the broad readership of JPR (e.g., technical tips and brief procedures for prosthodontic treatments) Discussion on a recent JPR article 	No abstract	≤ 2 printed pages *Start with "Dear Editor" *No section heading	1,000 words	Up to 2 figures/tables	≤ 10

I. Ethical standards and guidelines

Authorship

All authors should have made substantial contributions to the following: (1) conception and design of the study, acquisition of data, or analysis and interpretation of data; (2) drafting or critical revision of the article for important intellectual content; and (3) final approval of the version to be submitted. Although a single person must serve as the corresponding author and be responsible for the process from submission to acceptance, multiple individuals can be named corresponding authors in the submitted manuscript, only if the authors have a compelling reason to justify the same. The reason for this should be clearly stated in the cover letter accompanying the manuscript.

Changes to authorship

The authors are expected to carefully consider the list and order of authors before submitting

their manuscript and to provide a definitive list of authors at the time of the original submission. Any addition, deletion, or rearrangement of author names in the authorship list should be made before the manuscript has been accepted and only if approved by the Journal Editor. To request such a change, the Editor must receive the following from the corresponding author: (a) the reason for the change in the author list and (b) written confirmation (email or letter) from all authors agreeing with the change. In the case of the addition or removal of authors, this should include confirmation from the author being added or removed.

Only in exceptional circumstances will the Editor consider this request after the manuscript has been accepted. While this request is being considered by the Editor, publication of the manuscript will be suspended. If the manuscript has been published online, any request approved by the Editor will result in a corrigendum.

Acknowledgments

All contributors who do not meet the criteria for authorship as defined above should be listed in the Acknowledgments section. Examples of those who might be acknowledged include persons who provided purely technical help or writing assistance, or a department chair who provided only general support. The authors should disclose whether they received any writing assistance and identify the entity that funded this assistance.

Conflict of interest

At the end of the text, under a subheading "Conflict of interest statement," all authors must disclose any financial and personal relationships with other persons or organizations that could inappropriately influence or cause bias to their work. Examples of potential conflicts of interest include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, grants, and other funding sources.

Role of the funding source

All sources of funding should be declared as acknowledgments at the end of the manuscript. Authors should declare the role of the study sponsors, if any, in the study design; collection, analysis, and interpretation of data; writing of the manuscript; and the decision to submit the manuscript for publication. If the study sponsors had no involvement, this should be stated.

Systematic review and meta-analysis

Authors who intend to submit systematic review and meta-analysis articles to the JPR should report that their study is in compliance with the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) guidelines and submit the completed PRISMA 2020 flow diagram. The submitted manuscript must include a completed PRISMA 2020 checklist.

Randomized controlled trials

Reports of randomized controlled trials submitted for publication in the JPR should include a completed Consolidated Standards of Reporting Trials (CONSORT) 2010 flow diagram. The submitted manuscript should include a complete CONSORT 2010 checklist. Please refer to the CONSORT statement at <http://www.consort-statement.org/> for further details. JPR has adopted the proposal from the International Committee of Medical Journal Editors (ICMJE), which requires registration in a public trial registry as a condition of consideration for the publication of reports of clinical trials. Trials must be registered at or prior to the onset of patient enrolment. The clinical trial registration numbers should be included at the end of the abstract. For this purpose, a clinical trial is defined as any research project that prospectively assigns human subjects to intervention or comparison groups to study the causal relationship between a medical intervention and health outcome. Studies designed for other purposes, such as

studying pharmacokinetics or major toxicity (e.g., phase I trials), are exempted. Additional information is available at www.icmje.org.

Observational study

Observational studies, including cohort, case-control, and cross-sectional studies, should be reported in the JPR following the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement. For more information, please refer to the website and find available checklists to ensure that your report complies with the guidelines.

For more information on other types of studies, please refer to the Enhancing the Quality and Transparency of Health Research (EQUATOR) database, where various reporting guidelines are available.

Ethics

Work on human beings submitted to JPR should conform to the principles laid down in the Declaration of Helsinki: Recommendations Guiding Physicians in Biomedical Research Involving Human Subjects, adopted by the 18th World Medical Assembly, Helsinki, Finland, June 1964, amended by the 29th World Medical Assembly, Tokyo, Japan, October 1975, the 35th World Medical Assembly, Venice, Italy, October 1983, and the 41st World Medical Assembly, Hong Kong, September 1989. The manuscript should contain a statement that the work has been approved by the appropriate ethics committees related to the institution(s) in which it was performed and that subjects gave informed consent to the work. Studies involving animals must state that their care was in accordance with institutional guidelines. Patient and volunteer names, initials, and hospital numbers should not be used.

World Standard Methods/Criteria

JPR recommends the use of common world-standard methods and criteria, such as OHIP and the Diagnostic Criteria for Temporomandibular Disorders (DC/TMD: <https://ubwp.buffalo.edu/rdc-tmdinternational/>) in original articles and case reports.

Terminology Guidelines

The following approved prosthodontic terms should be used:

The Glossary of Prosthodontic Terms, Ninth Edition (GPT-9)

DOI: <https://doi.org/10.1016/j.prosdent.2016.12.001>.

Preprints

Authors may post their research manuscripts on community-recognized preprint servers (such as arXiv, bioRxiv, and institutional repositories) before submission to JPR. This policy applies only to the original version of a manuscript that describes the primary research. Any manuscript version that has been revised in response to the reviewers' comments, accepted for publication, or published in a journal should not be posted on a preprint server. If a manuscript is accepted for publication in JPR, the authors must update the preprint to include a link to the published journal article. Please explicitly mention the use of a preprint server in the cover letter.

II. Submission

Prior to submitting your manuscript online, please download and complete the "JPR Initial Checklist," which is available on the JPR website (<https://www.jstage.jst.go.jp/files/jpr/1/204/-char/en>). Our online submission system guides the user stepwise through the process of entering article details and uploading files. The system converts article files into a single PDF file to be used in the peer review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notifications of the editor's decision and requests

for revision, is sent by email.

Submit your article

Please submit your article via the Editorial Manager®.

<https://www.editorialmanager.com/JPR>

Submission materials should include of the following:

- Cover letter
- Title page
- Title page (without author names and affiliations)
- Manuscript
- Manuscript for double-blind peer review (no author details)
- Figures
- Tables
- Completed "JPR Initial Check list"
- Bullet points for summary box (for review article, original article, case reports, and technical procedures)
 1. What is known about this topic? (less than 350 characters)
 2. What does this study add? (less than 350 characters)
- Graphical abstract (if applicable)
- Supplementary information (if applicable)

III. Peer review

This journal uses a double-blind review process. All contributions will be initially assessed by the editor for suitability to the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess their scientific quality. The Editor is responsible for the final decision regarding the acceptance or rejection of articles.

IV. Double-blind review

Since this journal uses a double-blind review process, the authors' identities are concealed from the reviewers, and vice versa. To facilitate this, please submit the following subsections:

Title page (without authors' names and affiliations)

This should not include the title, authors' names, affiliations, acknowledgements, any Declaration of Interest statement, or any complete address of the corresponding author, including an email address.

Manuscript for double-blind peer review (no author details)

The title page and main body of the paper (including references, figures, tables, and any acknowledgments) should not include any identifying information such as the authors' names or affiliations.

V. Manuscript format

The manuscript should be written clearly in English and typed with double spacing in 11- or 12-pt Arial or Times New Roman font. The manuscript must begin with a title page that includes the study title (within 25 words), article type, an abbreviated title (within 10 words) for use as the running head, three to five keywords, authors' full and complete names and institutions, and full postal address, telephone/fax numbers, and email addresses for correspondence. The number of pages of the text, tables, and figures should be stated at the bottom of the title page.

The files should be presented in the following order:

- Title
- Abstract
- Bullet points for Summary Box
- Keywords
- Main text
- Acknowledgements
- Conflict of interest statement
- References
- Tables (each table complete with title, legend, and footnotes)
- Figure legends

Figures should be supplied as separate files. Tables should be supplied as editable files, not pasted as images. The pledge statement attached to this journal must be accompanied with the manuscript.

FULL-LENGTH PAPERS

For full-length papers, the following format is recommended:

Abstract

Briefly provide a 250-word summary of the text, structured with the following headings:

1. Review: Purpose, Study selection, Results, Conclusions (not applicable to a narrative review)
2. Original article: Purpose, Methods, Results, Conclusions
3. Case Report: Patients, Discussion, Conclusions
4. Technical procedure: Purpose, Methods, Conclusions
5. No abstract required for a Letter to the Editor

Introduction

1. Clearly and briefly describe the study background and its rational objective, with a review of earlier publications.
2. It is recommended that previous studies should be the most relevant. Avoid an exhaustive literature review.

Materials and methods

1. Clearly describe the subjects, sample size, experimental procedures, and apparatus (manufacturer's names and addresses) were used in the study.

2. For experiments on human and animal subjects, give an account of the methods being ethically sound.
3. For original designs, details should be provided. Otherwise, references accompanied by sufficient information for interdisciplinary evaluation will suffice.
4. The type of statistical analysis used, as well as commercial software, must be described in this section.
5. Do not include the discussion in this section.
6. Precisely describe all drugs and chemicals used, including their generic names, doses, and modes of administration.

Results

1. Present the essential results in the text, in a clear and concise manner.
2. Use tables and figures to compare and contrast the findings.
3. Do not repeat all the detailed data in the tables and figures in the text.
4. Do not include the discussion in this section.
5. In the statistical analysis, define the probability values and present the differences that were found to be statistically significant.
6. Use italicized and capitalized "P" for the P value throughout the manuscript.

Discussion

1. Demonstrate the objective reliability of the results, as well as the property and limitation of the experimental procedures and subjects.
2. Point out the significance and limitations of the study, including implications for future research.
3. Describe and evaluate the results with a scientifically critical view, and discuss your findings in the context of other publications, including those presenting opposing views.
4. The introductory text or details about the results should not be repeated in this section.
5. Subjective comments can only be made in this section; however, any speculation must be identified as such.
6. Link the conclusions with the objectives of the study, as stated in the Introduction.

Acknowledgments

Acknowledgments, any scientific meetings at which the data were presented, sources of funding for the study, and/or any other special mentions, may be stated before the References section.

References

JPR uses the Vancouver reference style.

Citation in text

Please ensure that every reference cited in the text is present in the reference list (and vice versa). All references cited in the abstract must be provided in full. Unpublished results and personal communications are not recommended in the reference list but may be mentioned in the text. If these references are included in the reference list, they should follow the standard reference style of the journal and should include a substitution for the publication date with either "Unpublished results" or "Personal communication." Citation of a reference as "in press" implies that the item has been accepted for publication.

Reference links

The increased discoverability of research and high-quality peer reviews are ensured by online links to cited sources. To allow us to create links to abstracting and indexing services, please ensure that the data provided in the references are accurate. Please note that incorrect surnames, journal or book titles, publication years, and pagination may prevent link creation. When copying references, please be careful as they may already contain errors. Therefore, the use of the DOI is highly encouraged.

Web references

As a minimum, the full URL and the date on which the reference was last accessed should be provided. Any further information, if available (DOI, author names, dates, reference to source publication, etc.), should also be provided. Web references can be listed separately (e.g., after the reference list) under a different heading, if desired, or can be included in the reference list.

Data references

The journal encourages you to cite the underlying or relevant datasets in your manuscript by citing them in your text, and including data references in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and a global persistent identifier. Add [dataset] immediately before the reference so that it can be properly identified it as a data reference. The [dataset] identifier will not appear in the published article.

References in a special issue

Please ensure that the words "this issue" are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

Reference management software

Most journals have reference templates for popular reference-management software products. These include all products that support Citation Style Language styles, such as Mendeley. Using citation plug-ins from these products, authors need only select the appropriate journal template when preparing their articles, after which citations and bibliographies are automatically formatted in the journal's style. If no template is available for this journal, please follow the format of the sample references and citations as shown in this guide. If you use the reference management software, please ensure that all field codes are removed before submitting the electronic manuscript. If EndNote is used, this journal has standard templates available in key reference management packages.

Reference style

Text

Indicate references by number(s) in square brackets, in line with the text. The actual authors can be referred to, but the reference number(s) must always be provided.

List

Number the listed references (numbers in square brackets) in the order in which they appear in the text.

Examples:

Journal publication:

1. Van der Geer J, Hanraads JAJ, Lupton RA. The art of writing scientific articles. *J Sci Commun* 2010;163:51-9. <https://doi.org/10.1016/j.Sc.2010.00372>.

Journal publication with an article number:

2. Van der Geer J, Hanraads JAJ, Lupton RA. The art of writing scientific articles. *Heliyon*. 2018;19:e00205. <https://doi.org/10.1016/j.heliyon.2018.e00205>

Book:

3. Strunk Jr W, White EB. *The elements of style*. 4th ed. New York: Longman; 2000.

Chapter in an edited book:

4. Mettam GR, Adams LB. How to prepare an electronic version of your article. In: Jones BS, Smith RZ, editors. *Introduction to the electronic age*, New York: E-Publishing Inc; 2009, p. 281-304.

Website:

5. Cancer Research UK. Cancer statistics reports for the UK, <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/>; 2003 [accessed 13 March 2003].

Dataset:

6. Oguro M, Imahiro S, Saito S, Nakashizuka T. Mortality data for Japanese oak wilt disease and surrounding forest compositions, Mendeley Data, v1; 2015. <https://doi.org/10.17632/xwj98nb39r.1>.

Note the shortened form for the last page number (e.g., 51-9), and that for more than six authors, the first six should be listed followed by "et al." For further details you are referred to the "Uniform Requirements for Manuscripts submitted to Biomedical Journals" (*J Am Med Assoc* 1997;277:927-34) (see also [Samples of Formatted References](#)).

Journal abbreviations source

Journal names should be abbreviated according to the [List of Title Word Abbreviations](#).

FUNDAMENTAL RULE FOR STRUCTURE OF TEXT AND METHOD OF DESCRIPTION

Review

The length should not exceed eight printed pages. Reviews should introduce and summarize a specific theme that is useful to the readers. It should correctly introduce the background subject area and outcomes of past research, and special attention should be paid to the selection of reference literature. Therefore, biased views must be avoided. It is desirable to describe the methods used to search, select, and summarize information.

Original article

Original articles should have high novelty, lead to objective conclusions, and contribute to the development of prosthodontics. The length should not more than 10 printed pages.

< *Structure of original article* >

Introduction

The background, purpose, and significance of the research should be described in a clear manner.

Method of research (Materials and methods)

The material, apparatus, or method used for the research should be clearly and concisely described, so that additional tests can be performed by other researchers

using the same method. The experimental conditions, number of samples, sampling methods, and statistical processing should conform to the purpose of the study.

Results (Performance)

Only objective observations should be described and the subjective views of the authors should be avoided. In principle, the observed results should be indicated in tables, with values such as the average and standard deviation shown jointly. Refer to "Measuring data and its treatment" described hereunder for verification of significant differences and multiple comparisons.

Discussion

Adequate elaboration should be made on the methods and results by referring to relevant literature, and arguments and opinions should follow logical procedures. Furthermore, the discussion should focus on the purpose of the research, and a comprehensive discussion of irrelevant materials should be avoided. In addition, not only of the results should be discussed but also their significance for prosthodontics.

Conclusion (Summary)

Only the obtained results should be described accurately and concisely.

Case report

Proposals for the modification of diagnostic methods, treatment methods, and treatment skills that are considered to be established in the field of prosthodontics, as well as reports of rare cases, unexpected complications, or unexpected development of the disease, may fall in this category. Cases should be concretely and concisely described to inform readers of the treatment of patients. The length should not exceed six printed pages.

< *Structure of case report* >

Introduction

The introduction should state the positioning of the case in the dental clinic and its characteristics, describe the identified problems, and explain why the case is worthy of reporting.

Outline of the case

Concrete and concise descriptions should be made in the outline of the case, such as examination, inspection findings, diagnosis, therapeutic policy, treatment, and progress. Subtitles may be used to help readers understand better.

Discussion

Refer to related and important literature and discuss the reported case. Discuss the characteristics, treatment, and progress of the case and refer to its prosthodontic positioning.

Conclusion

The conclusion should include points that will be helpful for readers in their own clinical practice.

Technical procedure

Introduction of new clinical operation methods, research methods, and used methods or materials may be submitted, and the length should not exceed six pages. Acceptable articles should not introduce new products or mere technical information but should describe the novel effectiveness of treatment, long-term stability, or performance of equipment enhanced due to improvement proposed by the author.

< Structure of technical procedure >

Introduction

Clearly describe the purpose of the technology (operation method, research method, or used method) to be introduced.

Materials and methods

Clearly and systematically describe the materials, equipment, methods, methodology, and operational methods used.

Difference from conventional methods

Concisely describe the main points of the new contrivance and novelty that are different from conventional methods. Specifically, clear description of the development or contrivances made by the author should be provided.

Effect or performance

Clearly describe the improvement in effectiveness and safety resulting from the introduced method. Also, the merits and demerits of the operation method to be introduced should be described.

Conclusion

Only of the obtained conclusions about the new contrivance and novelty different from conventional methods should be described, as well as the points improved thereafter and its effectiveness.

Letter to the Editor

A Letter to the Editor should be in one of the following forms:

- A brief report of the research findings is appropriate for the scope of JPR and of special interest to its readers.
- An article that may not cover standard research but is of general interest to the broad readership of JPR (e.g., technical tips and brief procedures for prosthodontic treatments).
- A discussion commenting on a recent JPR article. As with other articles, a Letter to the Editor may be subject to peer review.

Typically, it should contain a text with 1,000 words or less, figure legends, and references. It should have no abstract and no section headings. The references are limited to 10. It need not follow the usual classification of sections, such as Materials and Methods. A Letter to the Editor may contain up to two figures or tables.

SUMMARY BOX

The summary box aims to provide JPR readers with an overview of their study findings. Two or three single-sentence bullet points for the summary box must be submitted when you submit a revised manuscript for review articles, original articles, case reports and technical procedures. The bullet points will appear in a highlighted textbox (summary box) on the first page of the manuscript and be used for social media to encourage followers to learn more about your study.



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1. Bullet point 1: What is already known about this topic?

Provide a short summary (less than 350 characters) highlighting the existing

Journal of Prosthodontic Research

Clinical evaluation of monolithic zirconia crowns: failure analysis of clinically obtained cases from a 3.5-year study

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Abstract
 Purpose: The primary purpose of this study was to examine the clinical performance of monolithic zirconia single crowns in terms of short-term failure or complications. The secondary purpose was to detect the originating flaws of clinically failed monolithic zirconia crowns to find the cause of failure.
 Methods: A short-term prospective cohort study based on record evaluation and clinical examination of patients treated with tooth-supported monolithic zirconia crowns was performed in the Department of Fixed Prosthodontics, Teikyo University Hospital, Japan. The crowns were prepared during the follow-up period from April 2014 to July 2018. The 3.5-year cumulative success and failure rates were set as primary endpoints. Factors of the crown or fragments were inspected under a scanning electron microscope for descriptive fractography.
 Results: During the study period, 40 monolithic zirconia crowns were placed. Four crowns experienced clinical complications, including: 1) fracture of the crown (two crowns), 2) abrasion of the crown (one crown), and 3) fracture of the antagonist tooth (one crown). The estimated Kaplan-Meier 3.5-year success and survival rates were 90.5% (95% confidence interval: 82.1–98.3) and 92.4% (95% CI: 74.1–98.3), respectively. Fractography revealed that all fractures were initiated from the wear phase on the occlusal surface.
 Conclusions: The results of this study suggest that the proper application of monolithic zirconia crowns requires detailed attention to interocclusal clearance and the restoration of the antagonist tooth.

Keywords: 1) ZrO₂-CAD/CAM, Fractography, Risk factor, Digital dentistry

Received date: 20 December 2019; Accepted date: 29 April 2020; Available online: 9 September 2020

1. Introduction
 In the early 2000s, the first generation of yttria-stabilized tetragonal zirconia polycrystal (TZP) was introduced as prosthodontic materials for porcelain veneer restorations [1], which major complication was porcelain chipping between labial porcelain for porcelain-veneer zirconia crown [2–6]. In recent years, monolithic zirconia based denture prosthesis have gained prominence as a novel free treatment option that involves the use of second-generation TZP (2G TZP), which enabled for improved translucency; the alumina content was reduced and the sintering temperature increased in order to reduce porosity and increase the grain size [7]. The most recent generation of 2G TZP (3G TZP) used dental prosthetics on both crowns using 3127Zr without porcelain veneer or porcelain-veneer restorations of monolithic zirconia restoration has further increased. Additionally, monolithic zirconia restorations do not have the disadvantage of porcelain chipping [8] also allow lesser heat preparation, as it requires little interocclusal clearance that has been demonstrated using 3G TZP. However, the fracture rate of all monolithic zirconia single crowns to fail

the cause of a monolithic zirconia crown fabricated at a dental laboratory and investigated up to 7.5 years from 2010 to 2017 was reported to be 16.24% [9]. This failure rate was lower than 14% which was previously reported in a 3.5-year investigation of computer-aided design and computer-aided manufacturing (CAD/CAM) all ceramic restorations [10]. Some researchers have reported that fractography may optimize the methods of processing and designing restorative materials and its components. Additionally, by providing a qualitative regarding the location of fracture initiation, it is possible to identify the cause of failure [11, 12].

Summary Box

1. Monolithic zirconia based dental prosthetics have gained prominence as a novel free treatment option that involves the use of second-generation TZP (2G TZP), which enabled for improved translucency; the alumina content was reduced and the sintering temperature increased in order to reduce porosity and increase the grain size [7]. However, the fracture rate of all monolithic zirconia single crowns to fail

WHAT THIS STUDY ADDS

1. Our study highlights that the proper application of monolithic zirconia crown requires detailed attention to interocclusal clearance and the restoration of the antagonist tooth.

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- knowledge and knowledge gap in your research topic.
2. **Bullet point 2: What does this study add?**
Provide a short summary (less than 350 characters) highlighting the knowledge and clinical relevance that this study adds.

The bullet points for summary box should be indicated in the first page of the manuscript file, followed by the abstract section. Although it is not mandatory to submit the bullet points at initial submission, they are encouraged as they effectively help editors and reviewers to understand and identify key points and significance of your study.

FIGURES AND TABLES

Figures

1. The number of figures used to present data essential to illustrate or prove a point should be kept to a minimum.
2. Reference should be made in the text to each illustration. Figures will be reduced to fit to the size of one column (7.5 cm) or two columns (16 cm), and any lettering should be large enough to allow this reduction without becoming illegible.
3. Each figure should be accompanied by a title and an explanatory legend called Legends to Figures on a separate page.
4. There should be sufficient experimental details in the legend to make the figure intelligible without reference to the text.
5. Legends to Figures should be double-spaced, in numerical order.
6. Photographs should be provided in the highest possible contrast.
7. Graphic resolution should be no less than 600 dpi for photographs, and 1200 dpi for line art.
8. The following file formats are acceptable: for photographs, .tiff, .jpg, and .png; and for line art, .tiff, .jpg, .png, and .pdf.
9. Indicate the magnification of photomicrographs in bar scales on the illustration itself instead of numerical magnification factors.
10. Make sure uniform lettering and sizing of your original artwork is used.
11. Save text in illustrations as "graphics" or enclose the font.
12. Only use the following fonts in your illustrations: Arial, Courier, Helvetica, Times New Roman, Symbol
13. Number the illustrations according to their sequence in the text.
14. Use a logical naming convention for your artwork files.
15. Provide all illustrations as separate files.
16. Provide separate captions to illustrations.
17. Produce images near to their desired size in the printed version.

Tables

Tables should be contained in the manuscript with editable files. Tables should be cited in the text. Column headings should be brief, but sufficiently explanatory. Standard abbreviations of units of measurement should be added between parentheses. Vertical lines should not be used to separate columns.

Legends and captions

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1. This regulation implements it from the day (April 1, 2013) with the establishment Public Interest Incorporated Associations.
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