

BUKTI KORESPONDENSI  
JURNAL INTERNASIONAL BEREPUTASI TERAKREDITASI Q3

Judul Artikel : **(C10)** Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report

Jurnal : Journal of Medicinal and Chemical Sciences (J. Med. Chem. Sci.)  
Penulis : **Michael Josef Kridanto Kamadjaja** , Wiwik Herawati Waluyo\*,  
Nike Puji R

No	Perihal	Tanggal	Halaman
1	Bukti submit dan artikel yang disubmit	21 Desember 2022	4
2	Bukti Revisi 1	06 Januari 2023	6-7
3	Bukti Revisi 2	10 Januari 2023	3
4	Bukti Revisi 3		
5	Decision 1		
6	Decision 2		
7	Decision 3		
8	Decision 4		
9	Bukti accepted	04 Februari 2023	8-16
10	Bukti published	17 Februari 2023	17-21

## Copyright Letter

### *Journal of Medicinal and Chemical Sciences (J. Med. Chem. Sci.)*

- ❖ Article Title: Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report
- ❖ Corresponding author: Michael Josef Kridanto Kamadjaja
- ❖ Email: [josef\\_310563@yahoo.com](mailto:josef_310563@yahoo.com)
- ❖ Names of co-authors: Nike Puji Rahmawati, Wiwik Herawati Waluyo

#### Assignment of Publishing Rights

- The author(s) acknowledged that the manuscript submitted is original work; all authors participated in the work in a substantive way and are prepared to take public responsibility for the work.

The manuscript has not been published and is not being submitted or considered for publication elsewhere.

There are aspects of this work related to laboratory animal or specific human illnesses that require promulgation and approval by public ethics.

All authors have seen and approved the manuscript as submitted.

Michael Josef Kridanto Kamadjaja  
(Corresponding Author)

  
Signature

December, 14th 2022  
Date

The following table should be completed in the order of the authors of the article (the authors' signature confirms the order of their names).

Authors	Name	Email Address	Affiliation	Mobile No.	Signature
1 <sup>st</sup> author	Michael Josef Kridanto Kamadjaja	josef_310563@yahoo.com	Universitas Airlangga		
2 <sup>nd</sup> author	Nike Puji Rahmawati	nikepujirahmawati@gmail.com	Universitas Airlangga		
3 <sup>rd</sup> author	Wiwik Herawati Waluyo	herawati007w@gmail.com	dr. Soebando General Hospital		

4 <sup>th</sup> author					
5 <sup>th</sup> author					

Copyright Letter



Wiwik Herawati Waluyo &lt;wiwikhwaluyo@gmail.com&gt;

## Acknowledgement of Submission (#JMCS-2212-1910)

1 pesan

**Journal of Medicinal and Chemical Sciences** <editorial@e-mail.sinaweb.net>  
 Balas Ke: Journal of Medicinal and Chemical Sciences <jmchemsci@gmail.com>  
 Kepada: wiwikhwaluyo@gmail.com  
 Cc: arzehgar@yahoo.com, sobhan.rezayati@yahoo.com

21 Desember 2022 pukul 14.32



Manuscript ID: JMCS-2212-1910

Manuscript Title: **Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report**

Authors: Wiwik Herawati Waluyo, Ratri Maya Sitalaksmi

Dear Wiwik Herawati Waluyo

I wish to acknowledge receiving the of the above mentioned manuscript.

It should be noted that the manuscript will be reviewed for possible publication in the Scientific Journals Management System.

Please be sure that the submitted manuscript has not been published previously and will not be submitted elsewhere prior to our decision.

Our editorial decision will be brought to your attention once the paper has been reviewed due the referees consideration.

I wish to take this opportunity to thank you for sharing your work with us.

Truly yours,

Executive managing Editor of **Journal of Medicinal and Chemical Sciences**

=====

Please Note: If the main author does not confirm the selected option (18-20 in the Checklist) and the amount after one week, her article will be rejected. **Please contact these emails about the amount and how to transfer the amount: [ss.sajjadifar@gmail.com](mailto:ss.sajjadifar@gmail.com), or [jmchemsci@gmail.com](mailto:jmchemsci@gmail.com) or my WhatsApp: 00989183432337. Please ask about fee and also send us your article ID.**

=====

If you have any questions, please contact with Assistant Editor of the JMCS: **Dr. Zeinab Arzehgar**, E-Mail: [jmchemsci@gmail.com](mailto:jmchemsci@gmail.com), [arzehgar@yahoo.com](mailto:arzehgar@yahoo.com), WhatsApp Number: **00989187434889** and **CEO of the SPC Publisher**



Wiwik Herawati Waluyo <wiwikhwaluyo@gmail.com>

**Manuscript Needs Revision (#JMCS-2212-1910 (R1))**

1 pesan

**Journal of Medicinal and Chemical Sciences** <editorial@e-mail.sinaweb.net>  
Balas Ke: Journal of Medicinal and Chemical Sciences <jmchemsci@gmail.com>  
Kepada: wiwikhwaluyo@gmail.com  
Cc: ratrimayasitalaksmi@gmail.com

6 Januari 2023 pukul 14.55



Manuscript ID: JMCS-2212-1910

Manuscript Title: **Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report**

Authors: Wiwik Herawati Waluyo, Ratri Maya Sitalaksmi

Dear Wiwik Herawati Waluyo

Evaluation process of the above mentioned manuscript has been reviewed. The comments of the reviewer(s) are included at the bottom of this letter.

The reviewer(s) have recommended publication, but also suggest some revisions to your manuscript. Therefore, I invite you to respond to the reviewer(s) comments and revise your manuscript within the period of defined time.

Because we are trying to facilitate timely publication of manuscripts submitted to journal, your revised manuscript should be uploaded as soon as possible. If it is not possible for you to submit your revision in a reasonable amount of time, we may have to consider your paper as a new submission.

Once again, thank you for submitting your manuscript to this journal and I look forward to receiving your revision.

Truly yours,

Editorial Office of **Journal of Medicinal and Chemical Sciences**

=====

**Please Note:** Add the link of the DOI to end of every references: for example: DOI: **10.1021/cr400615v** and this is link of DOI: <https://doi.org/10.1021/cr400615v>

=====

If you have any questions, please contact with Assistant Editor of the JMCS: **Dr. Zeinab Arzehgar**, E-Mail: [jmchemsci@gmail.com](mailto:jmchemsci@gmail.com), [arzehgar@yahoo.com](mailto:arzehgar@yahoo.com), **WhatsApp Number: 00989187434889** and **CEO of the SPC Publisher and Director of the JMCS**, Dr. Sami Sajjadifar, E-Mail: [ss.sajjadifar@gmail.com](mailto:ss.sajjadifar@gmail.com), [samipubco@gmail.com](mailto:samipubco@gmail.com), **WhatsApp Number: 00989183432337**

Reviewers Recommendation:

**Reviewer 1:**

**Reviewer 2:**

Reviewer Comment For Author:

1. The manuscript contains several lingual deficiencies (grammar; syntax) that have to be eliminated before it may go to print. The authors are advised to use the spelling option of the Word program.
2. Introduction part is too shortly. So the same parts have to added.
3. The abstract part is not very well-structured and lacks a clear backbone. I recommend to rewrite the whole abstract to make it more meaningful and capture the essence of the manuscript better
4. The conclusion section should be improved.
5. In this article, the old references are used. Please use newer references.

Momeni, S., Mirzabeigi, M. (2022). 'The Place of Mortgage and Security in Intellectual Property Rights in Iran', *International Journal of Advanced Studies in Humanities and Social Science*, 11(2), pp. 142-148. doi: 10.22034/ijashss.2022.2.8

Mansouri, Z. (2022). 'Critical Analysis of Opponents Arguments in Legal Nature of Uterus Surrogacy Contract in Jurisprudence and Civil Law', *Journal of Law and Political Studies*, 2(3), pp. 231-245. doi: 10.22034/jlps.2022.3.5

[Unsubscribe](#)



Wiwik Herawati Waluyo &lt;wiwikhwaluyo@gmail.com&gt;

**Acknowledgement of Revision (#JMCS-2212-1910 (R1))**

1 pesan

**Journal of Medicinal and Chemical Sciences** <editorial@e-mail.sinaweb.net>  
Balas Ke: Journal of Medicinal and Chemical Sciences <jmchemsci@gmail.com>  
Kepada: wiwikhwaluyo@gmail.com  
Cc: arzehgar@yahoo.com, sobhan.rezayati@yahoo.com

10 Januari 2023 pukul 13.17



Manuscript ID: JMCS-2212-1910 (R1)

Manuscript Title: **Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report**

Authors: Wiwik Herawati Waluyo, Ratri Maya Sitalaksmi

Date: 2022-12-21

Dear Wiwik Herawati Waluyo

Thank you for submitting the revised file of your manuscript to the **Journal of Medicinal and Chemical Sciences**

The Editorial Office will proceed on your manuscript and inform you in the earliest time.

If there is anything else, please do not hesitate to contact us.

Truly yours,

Executive Managing Director of **Journal of Medicinal and Chemical Sciences**

=====

If you have any questions, please contact with Assistant Editor of the JMCS: **Dr. Zeinab Arzehgar**, E-Mail: [jmchemsci@gmail.com](mailto:jmchemsci@gmail.com), [arzehgar@yahoo.com](mailto:arzehgar@yahoo.com), **WhatsApp Number: 00989187434889** and **CEO of the SPC Publisher and Director of the JMCS**, Dr. Sami Sajjadifar, E-Mail: [ss.sajjadifar@gmail.com](mailto:ss.sajjadifar@gmail.com), [samipubco@gmail.com](mailto:samipubco@gmail.com), **WhatsApp Number: 00989183432337**

[Unsubscribe](#)

10/04/23 08.58

Gmail - Acknowledgement of Submission (#JMCS-2212-1910)

and Director of the JMCS, Dr. Sami Sajjadifar, E-Mail: [ss.sajjadifar@gmail.com](mailto:ss.sajjadifar@gmail.com), [samipubco@gmail.com](mailto:samipubco@gmail.com), WhatsApp  
Number: **00989183432337**

[Unsubscribe](#)





Wiwik Herawati Waluyo &lt;wiwikhwaluyo@gmail.com&gt;

**Scientific Acceptation of Manuscript (#JMCS-2212-1910 (R1))**

1 pesan

**Journal of Medicinal and Chemical Sciences** <editorial@e-mail.sinaweb.net>  
Balas Ke: Journal of Medicinal and Chemical Sciences <jmchemsci@gmail.com>  
Kepada: wiwikhwaluyo@gmail.com  
Cc: ratrimayasitalaksmi@gmail.com, ss.sajjadifar@gmail.com

4 Februari 2023 pukul 14.01

**Scientific Acceptance Letter (JMCS-2212-1910 (R1))**Dear **Wiwik Herawati Waluyo**All Authors: **Wiwik Herawati Waluyo, Ratri Maya Sitalaksmi**ID: **JMCS-2212-1910 (R1)**Title: **Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report**

We are pleased to inform you that your manuscript, "**Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report**", **has been accepted** for publication in **Journal of Medicinal and Chemical Sciences**.

You will receive an e-mail from the journal in due course with regards to the following items:

- 1- Language editor
- 2- Proof of your work

Payment=**665\$** + cost of transferring. Please pay your payment during 3 next days (Date of Accepting: **2023-02-04**). Please Note: The author usually must pay a **\$ 100** fine for a week late payment.

**Note:** Please pay your payment during 3 next days, and send us the copy of your payment to [jmchemsci@gmail.com](mailto:jmchemsci@gmail.com) or WhatsApp: **00989183432337**

Please remember to quote the manuscript number, JMCS-2212-1910 (R1), whenever inquiring about your manuscript.

Truly yours,



Professor Dr. Syed A. A. Rizvi,



**Editor-in-Chief of Journal of Medicinal and Chemical Sciences:** <http://www.jmchemsci.com/>

*Professor of Pharmaceutical Sciences*, Department of Pharmaceutical Sciences, College of Pharmacy and Health Sciences, Mercer University, Atlanta, GA. **USA**.

=====

**Please Note:** To increase visibility and citation, please share your published article with authors, colleagues, social and scientific networks such as [Instagram](#), [Facebook](#), [ResearchGate](#), [Academia](#) and [LinkedIn](#), etc.

=====

If you have any questions, please contact with Assistant Editor of the JMCS: **Dr. Zeinab Arzehgar**, E-Mail: [jmchemsci@gmail.com](mailto:jmchemsci@gmail.com), [arzehgar@yahoo.com](mailto:arzehgar@yahoo.com), **WhatsApp Number: 00989187434889** and **CEO of the SPC Publisher and Director of the JMCS**, Dr. Sami Sajjadifar, E-Mail: [ss.sajjadifar@gmail.com](mailto:ss.sajjadifar@gmail.com), [samipubco@gmail.com](mailto:samipubco@gmail.com), **WhatsApp Number: 00989183432337**

[Unsubscribe](#)



Original Article

## Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report

Michael Josef Kridanto Kamadjaja<sup>1,\*</sup> , Nike Puji Rahmawati<sup>1</sup> , Wiwik Herawati Waluyo<sup>2</sup> ,

<sup>1</sup>Faculty of Dental Medicine, Department of Prosthodontics, Universitas Airlangga, Surabaya, Indonesia

<sup>2</sup>Dr. Soebandi General Hospital, Jember, Indonesia

### ARTICLE INFO

#### Article history

Receive: 2022-12-21

Received in revised: 2023-01-10

Accepted: 2023-02-04

Manuscript ID: JMCS-2212-1910

Checked for Plagiarism: **Yes**

Language Editor:

[Dr. Fatimah Ramezani](#)

Editor who approved publication:

[Dr. Azahar Ali](#)

DOI:10.26655/JMCHMSCI.2023.8.16

### KEYWORDS

Removable partial denture

Metal frame prosthesis

Partial denture

Rheumatoid arthritis

Prosthodontics

### ABSTRACT

Rheumatoid arthritis is an autoimmune disease that attacks the joints and causes complaints in the oral cavity, especially periodontitis. This study identified the case of a patient with rheumatoid arthritis, who was missing his teeth and wanted to get dentures made, so he could eat comfortably and restore his aesthetics. Metal framing has been used for a long time because it is lightweight and easy to clean, and does not burden the teeth and periodontal tissues. This article discusses about the use of a partially detached metal framework in rheumatoid arthritis patients. The patient has been receiving therapy for the last three years and continues to do so. There are complaints in the oral cavity in the form of canker sores and shaking, which cause some teeth to fall out. The treatment used in this case was a Removable Denture Prosthesis (RDP) because the patient had many missing teeth and was still under medical care. In this case, a partial RDP with a metal frame is used because it stabilizes the position of the remaining teeth. The results showed that using a removable metal frame satisfies patients partially because it reduces tooth impact and improves aesthetics and chewing ability.

### GRAPHICAL ABSTRACT



\* Corresponding author: Michael Josef Kridanto Kamadjaja

✉ E-mail: [josef\\_310563@yahoo.com](mailto:josef_310563@yahoo.com)

© 2023 by SPC (Sami Publishing Company)

## Introduction

Rheumatoid arthritis is an autoimmune chronic inflammatory disorder or autoimmune response. People's immune systems can be down and disturbed, destroying joints and lining of the synovial membrane, especially hands, feet, and knees. About 36% of patients reported worsening health and were twice as likely to have their ability to engage in some activities restricted. Furthermore, nearly 30% of patients are more likely to require personal care assistance than persons without arthritis [1]. According to basic health research in 2018, the total of people with rheumatoid arthritis in Indonesia is around 7,30% [2]. Based on the RA prevalence globally (0.5-1%), it is estimated that there are at least 1.3 million people in Indonesia have rheumatoid arthritis [1]. Although there is no permanent treatment for joint inflammation and damage brought on by rheumatoid arthritis, it can be managed with disease-modifying anti-rheumatic drugs (DMARD), corticosteroids, or non-steroidal anti-inflammatory drugs (NSAIDs) [3, 4].

According to Suhaimi *et al.* [5], rheumatoid arthritis patients were eight times more likely to have periodontal disease. In some studies, rheumatoid arthritis patients experience severe periodontal disease, and tooth loss is more likely experienced by rheumatoid arthritis patients [6, 7]. Periodontitis is a chronic inflammatory condition characterised by degradation of the periodontal ligament and alveolar bone, which can lead to tooth loss if left untreated [8]. According to Potempa *et al.* [9], periodontal disease and rheumatoid arthritis have similar genetic and environmental risk profiles, including high connections with genes associated with immune responses and smoking. They also share aspects of inflammation with nearby bone loss (PD, the bone-supporting teeth; RA, the joint). It has been suggested that one mechanism connecting these two chronic inflammatory disorders is immune responses to infection [10]. Rheumatoid Arthritis Manifestation (RAM) in the

oral cavity is marked by stomatitis. Stomatitis happens due to long-term drug use; namely, methotrexate and anti-rheumatic agent. Cyclosporine can cause gingival overgrowth, TMJ disorders, and periodontal disease, including loss of bones and teeth, and xerostomia [11]. The use of partial removable dentures will become the primary method of restoring lost teeth. The proper plan will help preserve the oral cavity, but the worst plan will trigger bone resorption and accelerate the loss of the remaining teeth [12]. Removable partial dentures (RDP) are used in no distal abutment tooth, long span edentulous, and periodontal support conditions in still worse teeth. Bone loss in the visible anterior area with a fixed partial denture will have an unacceptable appearance, physical and emotional problems, primary teeth extraction, patient wishes, and unfavourable maxillomandibular relationships [13, 14]. When a fixed partial denture cannot be used due to the length of edentulous ridge or there is a guarded prognosis for the patient's periodontal condition, RPD is one of the practical solutions used by dentists [15]. Based on the primary material of RDP partial, there are two groups: acrylic resin and metal frame. RDP partial acrylic resin is a denture with acrylic resin bases and a partial metal frame. RDP is a denture whose framework is made of metal. Both materials are available dentures used to replace lost teeth [16]. This study discussed on the denture use in patient with rheumatoid arthritis and periodontal disease.

### Case report

An older woman aged 62 years old came to the Prosthodontics Clinic, Faculty of Dentistry, Universitas Airlangga, to make maxillary and mandibular dentures so she could eat comfortably and look good. The patient has controlled rheumatoid arthritis and has already been undergoing treatment for three years, and has continued until now. Complaints in the oral cavity were that some teeth had been revoked because of shaking and thrush.



**Figure 1:** Intra Oral. In front (A), Right (B), Left (C), Maxilo occlusal (D), and Mandible occlusal (E)

Based on [Figure 1](#) above, the oral hygiene seemed medium and there was a patch on the teeth number 11, 15, 14, 18, 21, 23, 37, 38, and 48; caries on teeth 11 and 21; abfraction on teeth 23 and 34; and lost teeth 16, 17, 24, 25, 26, 27, 28, 35, 36, 41, 44, 45, 46, and 47. On the radiographic examination ([Figure 2](#)), there were radiopaque images of dental crowns and root canals 18, impressions of the root canal and dental fillings, radiopaque images of dental crowns on 15, 14, 22, 23, 37, 38, 48, the impression of dental fillings, radiolucent appearance of the crown of teeth 11, 21 impressions of dental caries, missing teeth 17, 16, 24, 25, 26, 27, 28, 36, 35, 44, 45, 46, and 47, and bone loss in region 1, 2, 3, and 4.

When the patient comes to the clinic, informed consent has done. The printing of the study model with printing material irreversible hydrocolloid (alginate) and treatment in the teeth conservation field for teeth 11 and 21 along with providing the education and instruction for

treatment of oral cavity health has also done. Then, it is continued in making an individual printing spoon for physiology printing to obtain a job model and bite determination. Preparation was conducted in abutment teeth to make rest seat on teeth 13, 15, 18, 23, 34, 37, and 48. Functional printing of maxillary and mandibular with elastomer medium body is continued with elastomer light body material. Based on those job models, it is made metal frame with Akers clasp design on 15, 18, 34, and 37; RPY clasp on 23, rest addition on 13, c clasp modification on 43, and ring clasp on 48. After the metal frame was finished, a trial fit was carried out ([Figure 3](#)), followed by making the bite rim, measuring the vertical dimensions, selecting the color of the teeth, and installing the model on the articulator. The next stage is the arrangement of the maxillary and mandibular teeth and trying them on the patient.



**Figure 2:** Patient's radiographic panoramic



**Figure 3:** The framework of metal frame maxillary (A) and mandibular (B)



**Figure 4:** Before and after treatment

Subsequent laboratory work is making teeth contours acrylic packing, polishing, and inserting dentures on patients. During insertion, pay attention to the retention and stability of denture, esthetics, and patient comfort when using denture, phonetics, occlusion, and patient articulation. The patient was instructed to wear the denture for 24 hours, and the denture should not be used for eating and control the next day. The first and second control a week later, the patient had no complaints, the denture was used to chew food as usual, and the patient was delighted (Figure 4).

### Results and Discussion

Fixed Denture Prosthesis (FDP) provides better health and function than Removable Denture Prosthesis (RDP) partial, and most patients prefers using it. However, RDP partial is used in this case because of the lost teeth, a long span edentulous in the posterior part, periodontal support in the worst teeth, the patient still in medical treatment, wishes not to do FDP, which relates to some of the teeth that will be prepared. In addition, it is expensive to make dentures [13]. The treatment with RDP partial will help improve

the structure if it can be conducted correctly. RDP partial can be planned to stabilize the teeth' position and to restore arch integrity as a subsequent function unit [12].

Metal frame dentures are ideal than acrylic dentures. Since it is made more thin, rigid, and strong, it can be made an ideal design and more comfortable. In this case, the metal frame can be planned to stabilize the teeth' position in a far away position. Therefore, it can function as a splint in teeth. Because of the patient's systematic condition, using a metal frame is expected not to burden abutment teeth and supporting tissue or alveolar ridge. Hence, it can fulfill a network preservation principle. Besides, the denture is more hygienic [16, 17]. The statement deals with Kazem *et al.* [18] stated that acrylic removable prosthesis tends to harm periodontium parameters when teeth communicate with resin. However, polyoxymethylene (POM) is advised for those allergic to metal. The simplicity of polymers production using CAD-CAM technology has increased interest in them. Because POM has more muscular flexural strength, microhardness, and fracture toughness than polymethylmethacrylate (PMMA), the denture

foundation or framework is designed smaller with less tissue coverage, improving patient oral hygiene and health [15].

Based on the Kennedy classification and survey that have been conducted, edentulous will be affected: retainer types (direct and indirect), connector (major and minor), dentures bases, and RDP partial election [14]. Each component used and designed will control vertical, horizontal, and rotation movement [19]. Retention strength and pressure distribution on the gripping arm are keys to the success of long dentures. In addition, it could be noted that the gripping arm design should only produce a small amount of pressure. This is important so that the remaining tissue is maintained. The lack of stability leads to decreased retention and failure of denture function. The retention strength from Akers gripping is more vital than back action gripping. This research deals with Abdulhadi's research that the average retention strong is higher than Akers gripping, followed by H-H (half-half) gripping and RPA (rest plate Akers). In this case, Akers clasps were used in the teeth 18, 15, 34, and 37 to obtain higher retention strong [19].

RPY (rest, plate proximal, Y-clasp) gripping has a similar mechanism to T-clasp. This design was used in class I or class II Kennedy when the undercut is located near with edentulous area. This clasp lacking is a cast-off accumulation and the condition of flexibility increase from the retention arm, and it could be added bracing and unit stabilization [14]. In this case, RPY was used in the teeth 23 to obtain strong retention. The best addition in the teeth 13 and 23 lacks flexibility from the retention arm. The clinical crown showed a sufficient vertical height when gripping the teeth 43 used to accomodation C-clasp. Meanwhile, ring clasp usage in the teeth 48 is based on the most independent posterior molars, without proximal contact on the mesial side [14]. Besides, the key to success for the RA patient is based on the stability of systemic conditions. During treatment, it could be noted whether there is ulceration, gingival overgrowth, xerostomia, and periodontitis. An imbalance in the oral microbiome might contribute to some

oral and systemic disorders. These disorders are head and neck cancer (HNC), periodontitis, dental caries, and recurrent endodontic infections [20]. Meanwhile, antibiotics may help in controlling dysbiosis, and they can further lead to superinfections. After treatment, denture treatment must be delivered, keeping the oral cavity healthy and familiar [11].

## Conclusion

This study discusses about a case of using dentures in a patient with a history of rheumatoid arthritis and periodontal disease. The results showed that the patient had lost a lot of teeth, so the used method was a removable denture prosthesis with a metal frame. A partially removable metal frame provides satisfaction to the patient because it can reduce tooth shakes and improve aesthetics and chew ability. Moreover, a higher level of oral hygiene is required for RDP patients and that denture design should be as simple as possible. Using metal frame removable dentures on rheumatoid arthritis patients is very effective. Because using a metal frame does not burden abutment teeth and supporting tissue or alveolar ridge, it can fulfil a network preservation principle. Significantly, the gripping design is better planned and applied.

## Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

## Authors' contributions

All authors contributed to data analysis, drafting, and revising of the paper and agreed to be responsible for all the aspects of this work.

## Conflict of Interest

We have no conflicts of interest to disclose.

## ORCID

Michael Josef Kridanto Kamadajaja

<https://orcid.org/0000-0003-3226-7781>

Nike Puji Rahmawati

<https://orcid.org/0000-0002-4012-4564>

Wiwik Herawati Waluyo

<https://orcid.org/0000-0002-6446-4264>

## References

- [1]. Hidayat R., Suryana B.P.P., Wijaya L.K., Ariane A., Hellmi R.Y., Adnan E., Sumariyono, Indonesian Rheumatology Association (IRA) Recommendations for Diagnosis and Management of Rheumatoid Arthritis, *Indonesian Journal of Rheumatology*, 2021, **13**:322 [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
- [2]. Andri J., Padila P., Sartika A., Putri S.E.N., Harsismanto J., Tingkat Pengetahuan terhadap Penanganan Penyakit Rheumatoid Arthritis pada Lansia, *Jurnal Kesmas Asclepius*, 2020, **2**:12 [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
- [3]. Azalan M.S., Mohamad W.M.W., Ghazali W.S.W., Hamid W.Z.W.A., Saddki N., Rheumatoid Factor and Its Association with Disease Severity and Functional Status of Rheumatoid Arthritis Patients, *Journal of International Dental and Medical Research*, 2021, **14**:440 [[Google Scholar](#)], [[Publisher](#)]
- [4]. Aletaha D., Smolen J.S., Diagnosis and Management of Rheumatoid Arthritis, *JAMA*, 2018, **320**:1360 [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
- [5]. Suhaimi N., Kamaruzaman N., Taib H., Mohamad W.M.W., Ghazali W.S.W., Assessment Of Periodontal Status In Patients With Rheumatoid Arthritis In Kelantan, Malaysia: A Preliminary Study, *Journal of International Dental and Medical Research*, 2016, **9**:108 [[Google Scholar](#)]
- [6]. Mobini M., Maboudi A., Mohammadpour R.A., Periodontitis in rheumatoid arthritis patients, abundance and association with disease activity, *Medical Journal of The Islamic Republic of Iran*, 2017, **31**:252 [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
- [7]. Falcao A., Bullón P., A review of the influence of periodontal treatment in systemic diseases, *Periodontology 2000*, 2019, **79**:117 [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
- [8]. Rodríguez-Lozano B., González-Febles J., Garnier-Rodríguez J.L., Dadlani S., Bustabad-Reyes S., Sanz M., et al. Association between severity of periodontitis and clinical activity in rheumatoid arthritis patients: a case-control study, *Arthritis research & therapy*, 2019, **21**:27 [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
- [9]. Potempa J., Mydel P., Koziel J., The case for periodontitis in the pathogenesis of rheumatoid arthritis, *Nature Reviews Rheumatology*, 2017, **13**:606 [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
- [10]. Protudjer J.L.P., Billedeau C., Hurst K., Schroth R., Stavropoulou C., Kelekis-Cholakakis A., Hitchon C.A., Oral Health in Rheumatoid Arthritis: Listening to Patients, *JDR Clin Transl Res* 2022, **7**:127 [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
- [11]. Treister N., Glick M., Rheumatoid Arthritis: A Review and Suggested Dental Care Considerations, *The Journal of the American Dental Association*, 1999, **130**:689 [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
- [12]. Chang C., Daniela D., John J. Kratochvil's Fundamentals of Removable Partial Dentures. USA: Quintessence Publishing Co, Inc; 2019 [[Publisher](#)]
- [13]. Land R., Fujimoto F. Contemporary Fixed Prosthodontics. Fourth. USA: Mosby, Elsevier; 2006 [[Publisher](#)]
- [14]. Phoenix D., Charles C. Stewart's Clinical Removable Partial Prosthodontics. Fourth. Canada: Quintessence Publishing Co, Inc; 2008 [[Publisher](#)]
- [15]. Teeranuwat P., Jindachua C., Rungsiyakull P., Chaijareenont P., Computer-aided Design and Computer-aided Manufacturing Fabricated Polyoxymethylene used for Maxillary Removable Partial Denture Framework, *Journal of International Dental and Medical Research*, 2022, **15**:306 [[Google Scholar](#)], [[Publisher](#)]
- [16]. Thressia M., Proses Pembuatan Gigi Tiruan Sebagian Lepas dari Bahan Kombinasi Logam dan Akrilik. *J Kesehatan Perintis* 2015, **1** [[Crossref](#)], [[Google Scholar](#)]
- [17]. Lenggogeny P., Masulili S.L.C., Gigi Tiruan Sebagian Kerangka Logam sebagai Penunjang Kesehatan Jaringan Periodontal, *Majalah Kedokteran Gigi Indonesia*, 2015, **20**:123 [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
- [18]. Kazem N.M., Abd S.T., Abdulla W.L., Dawood M.A.A., Admon M., Sabah M., The Effect of Removable Partial Denture on Periodontal Health



Status, *Global J. Biotechnol. Biochem.*, 2017, **6**:512 [[Google Scholar](#)]  
[19]. Dharmautama M., Machmud E., Rasyid A.F., Pengaruh pemilihan gigi penyangga terhadap desain cengkeram rangka logam Effect of abutment selection to the clasp design of metal frame, *Dentofasial*, 2012, **11**:84 [[Google Scholar](#)]

[20]. Cagna D.R., Donovan T.E., McKee J.R., Eichmiller F., Metz J.E., Albouy J.P., Marzola R., Murphy K.G., Troeltzsch M., Annual review of selected scientific literature: A report of the Committee on Scientific Investigation of the American Academy of Restorative Dentistry, *The Journal of Prosthetic Dentistry*, 2021, **126**:276 [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]

#### HOW TO CITE THIS ARTICLE

Michael Josef Kridanto Kamadjaja , Wiwik Herawati Waluyo, Nike Puji Rahmawati. Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report. *J. Med. Chem. Sci.*, 2023, 6(8) 1878-1884

DOI: <https://doi.org/10.26655/JMCHMSCI.2023.8.16>

URL: [http://www.jmchemsci.com/article\\_166919.html](http://www.jmchemsci.com/article_166919.html)

[Sent from Yahoo Mail on Android](#)

----- Forwarded Message -----

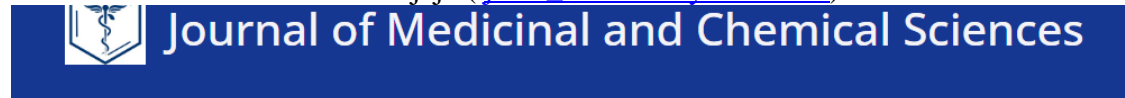
**From:** "josef\_310563@yahoo.com" <josef\_310563@yahoo.com>  
**To:** "wiwikhwaluyo@gmail.com" <wiwikhwaluyo@gmail.com>, "Journal of Medicinal and Chemical Sciences" <jmchemsci@gmail.com>  
**Sent:** Thu, Apr 6, 2023 at 13:56  
**Subject:** Re: Fwd: Manuscript Published in Print (#JMCS-2212-1910 (R1))

[Sent from Yahoo Mail on Android](#)

On Wed, Apr 5, 2023 at 14:52, Wiwik Herawati Waluyo <wiwikhwaluyo@gmail.com> wrote:

Dear Editor,

Have you made the correction yet? In the display page the corresponding author should be Michael Josef Kridanto Kamadjaja ([josef\\_310563@yahoo.com](mailto:josef_310563@yahoo.com))



Home / Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report

Search

Home

A-Z Journals

Browse

Journal Info

## Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report

Document Type : Original Article

### Authors

Michael Josef Kridanto Kamadjaja  <sup>1</sup> Nike Puji Rahmawati <sup>1</sup> Wiwik Herawati Waluyo  <sup>2</sup>

<sup>1</sup> Faculty of Dental Medicine, Department of Prosthodontics, Universitas Airlangga, Surabaya, Indonesia

<sup>2</sup> dr. Soebandi General Hospital, Jember, Indonesia

<https://doi.org/10.26655/JMCHMSCI.2023.8.16>

### Abstract

Meanwhile in the pdf file, the authors' order should be re order as in the display page

[Journal of Medicinal and Chemical Sciences 6 \(2023\) 1878-1884](#)






**Journal of Medicinal and Chemical Sciences**

Journal homepage: <http://www.jmchemsci.com/>



*Original Article*

## **Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report**

**Michael Josef Kridanto Kamadjaja<sup>1,\*</sup> , Wiwik Herawati Waluyo<sup>2</sup> , Nike Puji Rahmawati<sup>1</sup> **

<sup>1</sup>Faculty of Dental Medicine, Department of Prosthodontics, Universitas Airlangga, Surabaya, Indonesia  
<sup>2</sup>Dr. Soebandi General Hospital, Jember, Indonesia

and for the corresponding author, it should be Michael Josef Kridanto Kamadjaja ([josef\\_310563@yahoo.com](mailto:josef_310563@yahoo.com))

\* Corresponding author: Wiwik Herawati Waluyo  
✉ E-mail: Email: [wiwikherawati@gmail.com](mailto:wiwikherawati@gmail.com)  
© 2023 by SPC (Sami Publishing Company)

Thank you

Regards,  
Wiwik

----- Forwarded message -----

Dari: **Wiwik Herawati Waluyo** <[wiwikherawati@gmail.com](mailto:wiwikherawati@gmail.com)>

Date: Sel, 21 Feb 2023 pukul 08.36

Subject: Re: Manuscript Published in Print (#JMCS-2212-1910 (R1))

To: Journal of Medicinal and Chemical Sciences <[jmchemsci@gmail.com](mailto:jmchemsci@gmail.com)>, <[arzehgar@yahoo.com](mailto:arzehgar@yahoo.com)>, <[ss.sajjadifar@gmail.com](mailto:ss.sajjadifar@gmail.com)>

Dear Editor,

I am asking about whether I can make a correction again in the published article? Since the published article and the galley proof that I sent via system is different. The authors' order should be like this

## Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report

Michael Josef Kridanto Kamadjaja<sup>1,\*</sup> , Nike Puji Rahmawati<sup>1</sup> , Wiwik Herawati Waluyo<sup>2</sup> 

<sup>1</sup>Department of Prosthodontics, Faculty of Dental Medicine, [Universitas Airlangga](#), Surabaya, Indonesia

<sup>2</sup>Dr. Soebandi General Hospital, Jember, Indonesia

and the corresponding author is Michael Josef Kridanto Kamadjaja

\* Corresponding author: Michael Josef Kridanto Kamadjaja

✉ E-mail: Email: [josef\\_310563@yahoo.com](mailto:josef_310563@yahoo.com)

© 2022 by SPC (Sami Publishing Company)

Please let me know when the correction is made. Thank you

Regards,  
Wiwik

Pada tanggal Sen, 20 Feb 2023 pukul 16.39 Journal of Medicinal and Chemical Sciences  
<[jmchemsci@gmail.com](mailto:jmchemsci@gmail.com)> menulis:

Hi!

Your payment is OK and paid by you. Please don't worry about your payment.

Dear Dr. Arzehgar

Please follow this article and answer to this authors carefully.

Regards  
Sajjadifar

Dr. Sami Sajjadifar

1. Chairman of the [Sami Publishing Company \(SPC\)](#)

2. Owner & Director-in-Charge of the **JMCS** journal

E-mail: [ss.sajjadifar@gmail.com](mailto:ss.sajjadifar@gmail.com), [samipubco@gmail.com](mailto:samipubco@gmail.com), [info@samipubco.com](mailto:info@samipubco.com)

Tel&Fax: 0098 (84) 32226101 and Mobile & Whatâ€™sup: 00989183432337

**Address of the Publisher:** Daneshjou Bolv., Sami Publishing Company (SPC), P.O. Box: 6931936173, Ilam, Iran.

On Monday, February 20, 2023 at 05:28:27 AM GMT+3:30, Wiwik Herawati Waluyo <[wiwikherawati@gmail.com](mailto:wiwikherawati@gmail.com)> wrote:

Dear Editor,

Thank you for your information.

However, is it possible to make a change again?

Since, the last galley proof that I sent to you has authors' order as below:

**Michael Josef Kridanto Kamadjaja**<sup>1,\*</sup>  **Nike Puji Rahmawati**<sup>1</sup> , **Wiwik Herawati Waluyo**<sup>2</sup> 

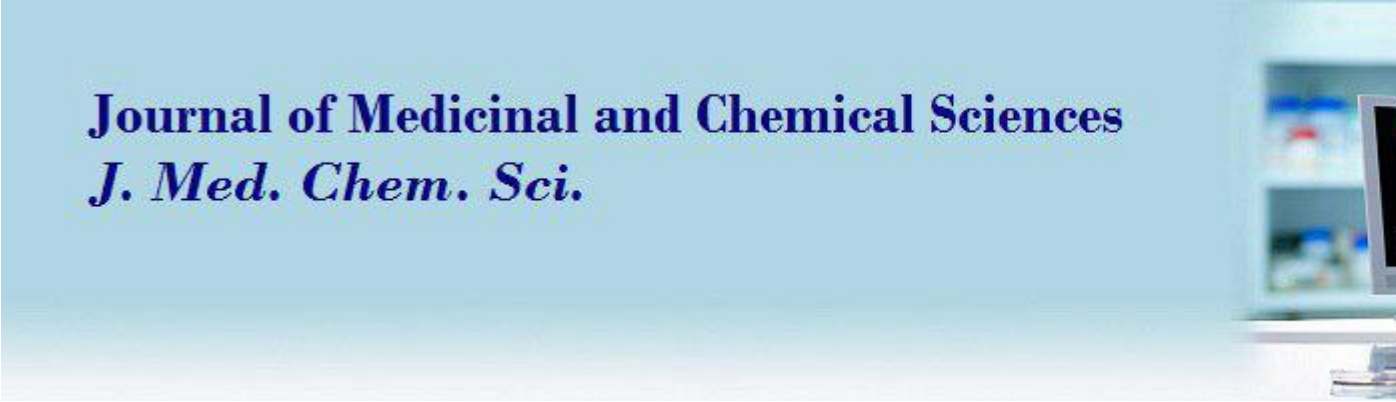
and the corresponding author is Michael Josef Kridanto Kamadjaja. But if it is not possible to make any changes again, it is okay.

Thank you very much

Regards,

Wiwik

Pada tanggal Jum, 17 Feb 2023 pukul 15.59 Journal of Medicinal and Chemical Sciences <[editorial@e-mail.sinawebsite.net](mailto:editorial@e-mail.sinawebsite.net)> menulis:



**Journal of Medicinal and Chemical Sciences**  
*J. Med. Chem. Sci.*

Manuscript ID: JMCS-2212-1910 (R1)

Manuscript Title: **Use of Metal Frame Removable Partial Denture in Rheumatoid Arthritis: A Case Report**

Authors: Wiwik Herawati Waluyo, Ratri Maya Sitalaksmi

Dear Wiwik Herawati Waluyo

Your paper published in journal.

Editorial Office of **Journal of Medicinal and Chemical Sciences**

=====

If you have any questions, please contact with Assistant Editor of the JMCS: **Dr. Zeinab Arzehgar**, E-Mail: [jmchemsci@gmail.com](mailto:jmchemsci@gmail.com), [arzehgar@yahoo.com](mailto:arzehgar@yahoo.com), **WhatsApp Number: 00989187434889** and **CEO of the SPC Publisher and Director of the JMCS**, Dr. Sami Sajjadifar, E-Mail: [ss.sajjadifar@gmail.com](mailto:ss.sajjadifar@gmail.com), [samipubco@gmail.com](mailto:samipubco@gmail.com), **WhatsApp Number: 00989183432337**

[Unsubscribe](#)