



Prevalence of Denture Related Oral Mucosal Lesions among Edentulous Patients Consulting Moroccan Dental Hospital

Aicha Oubbaih^{1,2*}, Yasmina Cheikh^{1,2}, Zineb Aljalil^{1,2}, Anas Mahboub³, Samira Bellemkhannate¹

¹Department of Removable Prosthodontics, Faculty of Dentistry, Hassan II University, Casablanca, Morocco

²Laboratory of Community Health Epidemiology and Biostatistics, Faculty of Dentistry of Casablanca, Casablanca, Morocco

³Private Practice, Casablanca, Morocco

Email: *droubbaih@gmail.com

How to cite this paper: Oubbaih, A., Cheikh, Y., Aljalil, Z., Mahboub, A. and Bellemkhannate, S. (2025) Prevalence of Denture Related Oral Mucosal Lesions among Edentulous Patients Consulting Moroccan Dental Hospital. *Open Access Library Journal*, 12: e12762.

<https://doi.org/10.4236/oalib.1112762>

Received: December 3, 2024

Accepted: January 19, 2025

Published: January 22, 2025

Copyright © 2025 by author(s) and Open Access Library Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Objectives: Conventional complete dentures are the most common treatment for edentulous patients, but they can be associated with denture-related mucosal lesions (DRMLs), which can negatively affect patient comfort and oral health. This study aimed to assess the prevalence of DRMLs and their associated risk factors in a Moroccan population. **Methods:** An epidemiological, descriptive, and cross-sectional study was conducted at the Removable Prosthodontics Department of Ibn Rochd Dental Center, Casablanca, from November 2022 to October 2023. A total of 132 patients with complete dentures were examined. Data were collected through a structured questionnaire covering demographics, denture characteristics, and maintenance habits, followed by clinical examination for DRMLs. Statistical analysis was performed using SPSS, with $p < 0.05$ as the significance threshold. **Results:** Among 132 patients, 39% (52 patients) presented with 59 mucosal lesions. The most common types were traumatic ulcers (34%), denture stomatitis (27%), and flabby ridges (20%), with the majority located in the maxilla (66%). Higher frequencies of DRMLs were observed among females, patients over 40 years old, individuals with impaired general health, dentures less than 5 years old, poor oral hygiene, and those missing follow-up appointments. However, these associations were not statistically significant. The only significant factor was the location of prosthesis placement ($p = 0.01$), which showed a clear association with the presence of DRMLs. **Discussion:** This study shows a high prevalence of DRMLs in Moroccan edentulous patients, with an increased frequency observed in females, older patients, and those with poor hygiene and irregular maintenance. However, none of these associations reached statistical significance, the placement of the prosthesis was significantly linked to DRMLs. These findings emphasize the importance of proper denture fitting, clinical follow-up, and improved oral

hygiene practices to prevent DRMLs. Further studies with larger sample sizes are needed to explore specific risk factors in the Moroccan population and develop tailored preventive measures.

Subject Areas

Dentistry

Keywords

Complete Denture, Oral Mucosal Lesions, Prevalence

1. Introduction

Despite significant advancements in the treatment of periodontal diseases and dental caries, total edentulism remains a widespread condition worldwide. According to the World Health Organization (WHO), the global prevalence of edentulism is estimated at 7% among people aged 20 and over, and 23% among those aged 60 and over.

Although prosthetic solutions for edentulous patients have improved significantly, particularly with the advent of implantology and artificial intelligence, these treatments remain inaccessible to many due to their high costs and the lack of reimbursement by health insurance. As a result, conventional full dentures remain the most commonly used solution for edentulous patients in many countries. These dentures restore essential functions such as chewing, aesthetics, speech, and social communication [1].

The insertion of new removable prostheses leads to physiological adaptation of the oral mucosa, and also to profound changes in the ecosystem of the oral cavity. These changes can contribute to the development of oral mucosal lesions, particularly in areas of the mucosa in direct contact with the denture [2]. The causes of these lesions are multifactorial and complex, with poorly fitted dentures, lack of maintenance, and advanced age being common risk factors [3].

Oral mucosal lesions can be classified based on their etiology, and in the case where the denture is incriminated, they include [2]:

Traumatic lesions: related to occlusion issues and poor prosthesis retention (e.g., inflammatory fibrous hyperplasia, flabby ridges, epulis fissuratum, and traumatic ulcers).

Inflammatory or infectious lesions: resulting from plaque accumulation on the prosthetic surface, such as denture stomatitis, angular cheilitis, and glossitis.

Material intolerance lesions: caused by allergic or immunological reactions to the materials used in the prosthesis.

The aim of this study was to determine the prevalence and risk factors of denture related oral mucosal lesions (DROMLs) in the population consulting the Removable Prosthodontics Department at the dental treatment and consultation

center (CCTD) of CHU Ibn Rochd Casablanca.

2. Materials and Methods

2.1. Study Population

We studied patients who met the following criteria:

Inclusion criteria:

Completely edentulous patients wearing uni- or bi-maxillary removable total dentures who consulted the CCTD for replacing their old dentures.

Completely edentulous patients wearing uni- or bi-maxillary removable total dentures who consulted the CCTD for late complaints following the use of removable dentures.

Completely edentulous patients fitted with uni- or bi-maxillary removable total dentures at the CCTD and referred for a follow-up clinical session.

Exclusion criteria:

Completely edentulous patients without removable dentures.

Patients with general pathologies presenting with oral mucosal manifestations.

Patients who have undergone cervico-facial radiotherapy.

Patients with significant jaw bone loss.

Completely edentulous patients using implant-retained total dentures.

2.2. Survey Support

A questionnaire was used to collect data regarding the patient's characteristics and the removable dentures used. The questionnaire consisted of 16 questions, divided into four sections as follows:

Part 1: Included 4 questions to identify the patient's profile (age, sex, general health, habits, and addictions).

Part 2: Included 4 questions to identify the type and age of maxillary and mandibular edentulism, the age of total removable dentures, and the place of their fabrication.

Part 3: Included 7 questions regarding patients' maintenance practices and behaviors related to their removable dentures.

Part 4: This section consisted of a clinical examination to determine the presence of oral mucosal lesions associated with the use of removable dentures, the location of these lesions, and the presence of symptoms (pain, discomfort, or bleeding).

Mucosal lesions were categorized as follows:

Denture stomatitis with its 3 Newton classes (7)

Traumatic ulcer

Flabby ridge

Hyperplasia

Epulis fissuratum

Angular cheilitis

Glossitis losangica

Epidermoid carcinoma

2.3. Data Collection

Patients who underwent total removable prosthesis procedures at the Removable Prosthodontics Department of the CCTD at CHU Ibn Rochd in Casablanca and met the inclusion criteria were contacted using the department's patient database. Patients who consulted for the revision of their removable prostheses or for treatment of complaints following their use were identified from the department's appointment waiting list.

Patients were seated in a dental chair and interviewed in Arabic about the different variables in the questionnaire, which was completed by the interviewer. The clinical examination was conducted under scalytic light with a tongue depressor or dental mirror by the interviewer, under the supervision of a professor from the Removable Prosthodontics Department.

2.4. Data Analysis

Data analysis was performed using SPSS software. Quantitative variables were expressed as means with standard deviations, while qualitative variables were presented as numbers and percentages. A bivariate analysis was performed, and a significance level was set at $p < 0.05$.

3. Results

3.1. Descriptive Results

Between November 2022 and October 2023, 132 patients wearing unimaxillary or bimaxillary removable total dentures were examined. Of these, 50% were women, and the average age was 63 ± 8.1 years. Additionally, 49.2% of the patients had a general pathology, and 13% were tobacco users (**Table 1**).

A total of 59 lesions related to the use of complete dentures were observed in 39% of the patients. The lesions were classified as follows:

Traumatic ulcers (34%), Denture stomatitis (27%) and Flabby ridges (20%) (**Table 2**).

Location of the lesions:

29% of mucosal lesions were located in the mandible, while 66% were found in the maxilla.

5% of mucosal lesions were located on the lips (**Table 3**).

3.2. Analytical Results

Female patients, individuals aged 60 years and older, and those with a general illness were most affected by mucosal lesions related to wearing complete dentures. However, these differences were not statistically significant (**Table 4**).

Patients who had their prostheses made in the Removable Prosthodontics Department at the CCTD had a higher frequency of oral mucosal lesions related to complete dentures compared to those who had their prostheses made in the

Table 1. Patient profile.

	n	%
Sex		
Male	66	50%
Female	66	50%
Age group		
30 - 40 years	2	1.5%
41 - 50 years	4	3%
51 - 60 years	33	25%
61 - 70 years	66	50%
71 years and above	27	20.5%
General Health Conditions		
Hypertension	31	23.5%
Diabetes	22	16.7%
Cardiovascular diseases	9	6.8%
Tobacco Use		
Yes	17	13%
No	115	87%

Table 2. Types of DROMLs distribution.

	n	%
Traumatic ulcer	20	34%
Denture stomatitis	16	27%
Flabby ridge	12	20%
Hyperplasia	6	10%
Epulis fissuratum	3	5%
Angular cheilitis	2	3%

Table 3. Number and location of lesions per patient.

	n	%
Number of lesions per patient		
Single lesion	46	88%
Two lesions	5	10%
Three lesions	1	2%
Location of the lesions		
Maxillary	39	66%

Continued

Anterior maxillary ridge	4	7
Posterior maxillary ridge	9	15
Floor of the vestibule	6	10
Soft palate	2	3
Palate	18	30
Mandible	17	29
Anterior mandibular ridge	5	8
Posterior mandibular ridge	3	5
Floor of the vestibule	4	7
Floor of the mouth	5	8
Labial mucosa	3	5

Table 4. Association between DROMLs and patient profile.

	n	%	p
Patient's gender			
Men	24	46	0.37
Women	28	54	
Age groups of the patients			
30 - 40 years	2	4	0.41
41 - 50 years	1	2	
51 - 60 years	9	17	
61 - 70 years	28	54	
71 and older	12	23	
General health status of the patients			
Good general health	21	40	0.16
Altered general health	31	60	

informal or private sector. This difference was statistically significant ($p = 0.01$) (**Table 5**).

Mucosal lesions associated with total removable dentures were more frequent in:

Patients who wore their dentures at night while sleeping compared to those who slept without dentures ($p = 0.64$).

Patients who used toothpaste alone for brushing ($p = 0.05$).

Patients who did not adhere to maintenance appointments or were not informed about them, as compared to those who did ($p = 0.09$) (**Table 6**).

Table 5. Association between DROMLs and complete denture characteristics.

	n	%	p
Age of the Denture			
0 - 5 years	27	52	0.19
5 - 10 years	15	29	
10 - 15 years	3	6	
15 - 20 years	1	2	
20 years and above	6	11	
Place of Denture Insertion			
CHU Ibn Rochd Prosthodontics department	24	46	0.01
Illegal sector	22	42	
Private practice	6	11	

Table 6. Association between DROMLs and use and maintenance habits.

	n	%	p
Cleaning Methods			
Toothbrush and toothpaste	23	44	0.64
Toothbrush and antiseptic solution	11	21	
Rinsing with water	11	21	
Toothbrush only	7	13	
Night-time Denture Use			
Yes	28	54	0.05
No	24	46	
Follow-Up Appointments Compliance			
No	45	87	0.09
Yes	7	13	

4. Discussion

The aim of this study was to identify the prevalence and risk factors of denture-related oral mucosal lesions (DRMLs) in the Moroccan population. However, several limitations must be acknowledged, including some patients' refusal to attend follow-up clinical examinations at the Ibn Rochd Dental Treatment and Consultation Center, inactive phone numbers provided in medical records, and incomplete patient records, particularly those older than five years.

Our findings reveal a 39% prevalence of patients presenting with 59 DRMLs, which contrasts with findings from other countries. Brantes *et al.* [4] reported a prevalence of 78% in Brazil, Gaur *et al.* [5] found 59.4% in India, and Dundar *et al.* [6] observed a lower prevalence of 35% in Türkiye. In contrast, Ogurinde *et al.*

[7] reported a much lower prevalence of only 13% in Nigeria. This variation in results may be attributed to differences in healthcare practices, diagnostic criteria, and study methodologies.

The most common DRMLs observed in our study were traumatic ulcers (34%), followed by denture stomatitis (27%) and flabby ridges (20%). These findings align with those of Kovacevic *et al.* [8], who found denture stomatitis to be the most frequent oral mucosal lesion in their study of 86 patients with complete dentures (42%), followed by angular cheilitis (21%) and traumatic ulcers (5%). Similarly, a recent study conducted in India in 2023 by Kambampati *et al.* [9] reported that 22% of 148 elderly patients with complete dentures exhibited DRMLs, with denture stomatitis being the most common lesion (47%).

Association between DRMLs and Patient Profile

In our study, DRMLs were more frequent in female patients (54%), in patients aged 60 years and older (75%), and in those with general illnesses (58.5%), although no significant associations were found. Similar studies have also reported a higher prevalence of DRMLs in women, including Patil *et al.* [10], Shah and Ahmad [11], and Brantes *et al.* [4]. Syed Hammad *et al.* [12] also reported that 59% of patients with DRMLs were female, and 70% were over 50 years old, with a significant association [13].

It has been suggested that women are more likely to seek prosthetic treatments and may use their dentures for prolonged periods without removing them, potentially increasing the risk of DRMLs [14]. In contrast, some studies report a higher percentage of men with DRMLs, which may be attributed to higher-risk lifestyle habits such as smoking and alcohol consumption, which are more common in men [15].

Age is another factor associated with the development of various nutritional deficiencies, systemic diseases, medication use, and changes in the quality and quantity of saliva. These factors, combined with the use of complete dentures, may facilitate oral changes and promote the development of mucosal lesions.

Several medical conditions associated with hyposalivation and parafunctional activity can lead to increased sensitivity of the oral mucosa, resulting in a higher risk of oral mucosal changes [16]. Dundar *et al.* [6] reported that diabetes mellitus is a significant risk factor for denture stomatitis and mucosal hyperplasia, and a statistically significant association was observed between cardiovascular disease, medication use, and traumatic ulcers. Kovacevic [8] found that immunosuppressed patients were 20 times more likely to develop oral and labial mucosal lesions. However, Jainkittivong's study found no association between oral lesions and medical conditions [17].

Association between DRMLs and Complete Denture Characteristics

In our study, 53% of patients with DRMLs had dentures less than five years old, but no significant relationship was observed. This finding may be explained by the large number of patients in this prosthesis age group in our study. However, several studies, such as those by Mandali [18], Syed Hammad *et al.* [12], Da Silva *et*

al. [13], Kossioni [19], and Brantes *et al.* [4], have reported that the prevalence of lesions increased with the duration of use of the same prosthesis, with a significant association between the length of use and the development of DRMLs.

Our study found a significant association between DRMLs and the location where the prosthesis was inserted. Forty-five percent of patients with DRMLs had their dentures placed at the Ibn Rochd Dental Treatment and Consultation Center (CCTD), which may be explained by the fact that 64.4% of the patients in our study were treated at this center. This suggests that factors related to the prosthesis placement, such as clinical practices or materials used, may play a role in the development of mucosal lesions.

Association between DRMLs and Maintenance Habits

We observed that 54% of patients with DRMLs wore their dentures regularly at night, but no significant association was found. The literature reports a strong association between nocturnal denture use and DRMLs [20] [21]. Syed Hammad [12] found a significant relationship between night-time denture use and the development of mucosal lesions. Kovacevic [8] and Brantes [4] reported that patients who wore their dentures at night were twice as likely to develop oral lesions.

Night-time denture wear is a significant factor in the pathogenesis of denture stomatitis, as it decreases the pH of the palatal mucosa due to the acidic products of yeasts, lactobacilli, and streptococci. The acidic environment between the denture base and buccal mucosa is further exacerbated by reduced salivation during sleep [22]. However, Ogunride *et al.* [7] reported no significant association between nocturnal denture use and DRMLs.

In terms of denture maintenance, 42% of patients with DRMLs cleaned their dentures only once a day, 40% cleaned them more than once a day, and 17% cleaned them three times a week. The most common cleaning method was mechanical brushing with toothpaste. Several studies have shown that mechanical cleaning alone, such as brushing, is insufficient for maintaining good denture hygiene [11] [23]. Furthermore, cleaning dentures with toothpaste has an abrasive effect, which can damage the resin surface and promote bacterial biofilm adhesion [23] [24]. A combination of mechanical brushing with chemical agents, such as 1% sodium hypochlorite, vinegar, or chlorhexidine digluconate, is recommended for effective denture hygiene [25] [26].

5. Conclusions

Our study highlights the importance of the dentist's ongoing role in preventing oral mucosal lesions associated with dental prostheses. This includes educating patients on proper denture care, such as daily oral hygiene, daily cleaning, and the removal and soaking of dentures overnight. Regular professional check-ups, timely adjustments, and periodic replacements are crucial to maintaining oral health and preventing complications. By addressing issues like cracks, irritation, or wear promptly, patients can reduce the risk of mucosal lesions, ensuring long-term comfort and well-being for denture users.

Further studies with larger sample sizes are needed to explore specific risk factors in the Moroccan population and develop tailored preventive measures.

Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] Piampring, P. (2013) Problems with Complete Dentures and Related Factors in Patients in Rajavithi Hospital from 2007 to 2012. *The Journal of the Medical Association of Thailand*, **99**, S182-S187.
- [2] Fajri, L., Benfdil, F., Merzouk, N., El Mohtarim, B. and Abdedine, A. (2008) Diagnostic et gestion des lésions muqueuses d'origine prothétique chez l'édenté complet. *Actualités Odonto-Stomatologiques*, **243**, 225-238. <https://doi.org/10.1051/aos:2008033>
- [3] El Assraoui, K., Oubbaih, A., Kaoun, K. and Bellemkhannate, S. (2023) Management of Denture-Induced Hyperplasia. *European Journal of Dental and Oral Health*, **4**, 23-26. <https://doi.org/10.24018/ejdent.2023.4.2.235>
- [4] Brantes, M., Azevedo, R., Rozza-de-Menezes, R., Povoia, H., Tucci, R., Gouvea, A., et al. (2019) Analysis of Risk Factors for Maxillary Denture-Related Oral Mucosal Lesions: A Cross-Sectional Study. *Medicina Oral Patología Oral y Cirugía Bucal*, **24**, e305-e313. <https://doi.org/10.4317/medoral.22826>
- [5] Gaur, A., Kumar, V.S.G., Siddiqui, S.R., Agarwal, S., Monga, H.S. and Gosavi, S.S. (2015) Study of Prevalence of Oral Lesions in Complete Denture Wearers. *Journal of International Oral Health*, **7**, 97-100.
- [6] Dundar, N. and Ilhan Kal, B. (2007) Oral Mucosal Conditions and Risk Factors among Elderly in a Turkish School of Dentistry. *Gerontology*, **53**, 165-172. <https://doi.org/10.1159/000098415>
- [7] Ogunrinde, T.J. and Olawale, O.F. (2020) The Prevalence of Denture Related Mucosa Lesions among Patients Managed in a Nigerian Teaching Hospital. *Pan African Medical Journal*, **37**, Article 358. <https://doi.org/10.11604/pamj.2020.37.358.22194>
- [8] Kovacevic, D. (2017) Predictors of Oral Mucosal Lesions among Removable Prosthesis Wearers. *Periodicum Biologorum*, **119**, 181-187. <https://doi.org/10.18054/pb.v119i3.4922>
- [9] Ramesh, M.V., Sri, K.B., Supriya, A.N., Manyam, R., Pasupuleti, S. and Ramesh, T. (2023) Prevalence of Oral Mucosal Lesions among Geriatric Patients: A Cross-Sectional Study. *World Journal of Dentistry*, **14**, 340-345. <https://doi.org/10.5005/jp-journals-10015-2214>
- [10] Patil, S., Yadav, N., Patil, P. and Kaswan, S. (2013) Prevalence and the Relationship of Oral Mucosal Lesions in Tobacco Users and Denture Wearers in the North Indian Population. *Journal of Family and Community Medicine*, **20**, 187-191. <https://doi.org/10.4103/2230-8229.122009>
- [11] Shah, A.A. and Ahmad, T.J. (2011) Oral Mucosal Lesions in Complete Denture Wearers. *Journal of Pakistan Association of Dermatologists*, **21**, 170-173.
- [12] Azeem, S.H.R., Aqeel, R., Zaki, A., Ijaz, S., Syed, S. and Nadeem, N. (2022) Prevalence and Distribution of Denture Induced Oral Mucosal Lesions among Patients Managed in Lahore Teaching Hospital. *Pakistan Journal of Medical and Health Sciences*, **16**, 179-182. <https://doi.org/10.53350/pjmhs22165179>
- [13] da Silva, H., Martins-Filho, P. and Piva, M. (2011) Denture-Related Oral Mucosal

- Lesions among Farmers in a Semi-Arid Northeastern Region of Brazil. *Medicina Oral Patología Oral y Cirugía Bucal*, **16**, e740-e744. <https://doi.org/10.4317/medoral.17081>
- [14] Cutright, D.E. (1974) The Histopathologic Findings in 583 Cases of Epulis Fissuratum. *Oral Surgery, Oral Medicine, Oral Pathology*, **37**, 401-411. [https://doi.org/10.1016/0030-4220\(74\)90113-3](https://doi.org/10.1016/0030-4220(74)90113-3)
- [15] Cheruvathoor, D., Thomas, V., Kumar, N. and Jose, M. (2020) High Prevalence of Oral Mucosal Lesions in Elderly: Call for Revolutionizing Geriatric Dental Care Strategies. *Journal of Family Medicine and Primary Care*, **9**, Article 4375. https://doi.org/10.4103/jfmpc.jfmpc_51_20
- [16] Márton, K., Boros, I., Fejérdy, P. and Madléna, M. (2004) Evaluation of Unstimulated Flow Rates of Whole and Palatal Saliva in Healthy Patients Wearing Complete Dentures and in Patients with Sjogren's Syndrome. *The Journal of Prosthetic Dentistry*, **91**, 577-581. <https://doi.org/10.1016/j.prosdent.2004.03.031>
- [17] Jainkittivong, A., Aneksuk, V. and Langlais, R.P. (2010) Oral Mucosal Lesions in Denture Wearers. *Gerodontology*, **27**, 26-32. <https://doi.org/10.1111/j.1741-2358.2009.00289.x>
- [18] Mandali, G., Sener, I.D., Turker, S.B. and Ülgen, H. (2010) Factors Affecting the Distribution and Prevalence of Oral Mucosal Lesions in Complete Denture Wearers. *Gerodontology*, **28**, 97-103. <https://doi.org/10.1111/j.1741-2358.2009.00351.x>
- [19] Kossioni, A.E. (2010) The Prevalence of Denture Stomatitis and Its Predisposing Conditions in an Older Greek Population. *Gerodontology*, **28**, 85-90. <https://doi.org/10.1111/j.1741-2358.2009.00359.x>
- [20] Patil, S., Doni, B. and Maheshwari, S. (2015) Prevalence and Distribution of Oral Mucosal Lesions in a Geriatric Indian Population. *Canadian Geriatrics Journal*, **18**, 11-14. <https://doi.org/10.5770/cgi.18.123>
- [21] Navabi, N., Gholamhoseinian, A., Baghaei, B. and Hashemipour, M.A. (2013) Risk Factors Associated with Denture Stomatitis in Healthy Subjects Attending a Dental School in Southeast Iran. *Sultan Qaboos University Medical Journal*, **13**, 574-580. <https://doi.org/10.12816/0003318>
- [22] Marinoski, J., Bokor-Bratić, M. and Čanković, M. (2014) Is Denture Stomatitis Always Related with Candida Infection? A Case Control Study. *Medicinski Glasnik*, **11**, 379-384.
- [23] Žilinskas, J., Junevičius, J., Česaitis, K. and Junevičiūtė, G. (2013) The Effect of Cleaning Substances on the Surface of Denture Base Material. *Medical Science Monitor*, **19**, 1142-1145. <https://doi.org/10.12659/msm.889568>
- [24] Cakan, U., Kara, O. and Kara, H.B. (2015) Effects of Various Denture Cleansers on Surface Roughness of Hard Permanent Reline Resins. *Dental Materials Journal*, **34**, 246-251. <https://doi.org/10.4012/dmj.2014-194>
- [25] Ribeiro, G.R., Campos, C.H. and Garcia, R.C.M.R. (2017) Removable Prosthesis Hygiene in Elders with Parkinson's Disease. *Special Care in Dentistry*, **37**, 277-281. <https://doi.org/10.1111/scd.12251>
- [26] Pires, C.W., Fraga, S., Beck, A.C.O., Braun, K.O. and Peres, P.E.C. (2017) Chemical Methods for Cleaning Conventional Dentures: What Is the Best Antimicrobial Option? An *In Vitro* Study. *Oral Health and Preventive Dentistry*, **15**, 73-77. <https://doi.org/10.3290/j.ohpd.a37716>