Table S1. PRISMA-ScR checklist.

SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
TITLE			
Title	1	Identify the report as a scoping review.	Title
ABSTRACT			
Structured summary	2	Provide a structured summary that includes the following (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives.	Abstract
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach.	Initial introduction
Objectives	4	Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g., population or participants, concepts, and context) or other relevant key elements used to conceptualize the review questions and/or objectives.	End of introduction
METHODS			
Protocol and registration	5	Indicate whether a review protocol exists; state if and where it can be accessed (e.g., a Web address); and if available, provide registration information, including the registration number.	Dedicated section in M&M
Eligibility criteria	6	Specify characteristics of the sources of evidence used as eligibility criteria (e.g., years considered, language, and publication status), and provide a rationale.	Dedicated section in M&M
Information sources*	7	Describe all the information sources in the search (e.g., databases with dates of coverage and contact with authors to identify additional sources), as well as the date when the most recent search was executed.	Dedicated section in M&M
Search	8	Present the full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	Dedicated section in M&M
Selection of sources of evidence†	9	State the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review.	Dedicated section in M&M
Data charting process‡	10	Describe the methods of charting data from the included sources of evidence (e.g., calibrated forms or forms that have been tested by the team before their use, and whether data charting was performed independently or in duplicate) and any processes for obtaining and confirming data from investigators.	Dedicated section in M&M
Data items	11	List and define all variables for which data were sought and any assumptions and simplifications made.	Dedicated

SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
			section in M&M
Critical appraisal of individual sources of evidence§	12	If completed, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate).	Dedicated section in M&M
Synthesis of results	13	Describe the methods of handling and summarizing the data that were charted.	Dedicated section in M&M
RESULTS			
Selection of sources of evidence	14	Give the numbers of sources of evidence screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram.	Dedicated table
Characteristics of sources of evidence	15	For each source of evidence, present the characteristics for which data were charted and provide the citations.	Dedicated table
Critical appraisal within sources of evidence	16	If completed, present data on critical appraisal of included sources of evidence (see item 12).	Dedicated table
Results of individual sources of evidence	17	For each included source of evidence, present the relevant data that were charted that relate to the review questions and objectives.	Dedicated table
Synthesis of results	18	Summarize and/or present the charting results as they relate to the review questions and objectives.	Dedicated table
DISCUSSION			
Summary of evidence	19	Summarize the main results (including an overview of the concepts, themes, and types of evidence available), link to the review questions and objectives, and consider the relevance to key groups.	Followed
Limitations	20	Discuss the limitations of the scoping review process.	Followed
Conclusions	21	Provide a general interpretation of the results with respect to the review questions and objectives, as well as the potential implications and/or next steps.	Followed
FUNDING			
Funding	22	Describe the sources of funding for the included sources of evidence, as well as the sources of funding for the scoping review. Describe the role of the funders of the scoping review.	None

Note: An explanation and elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. PRISMA for Scoping Reviews explanatory paper refers to Tricco, AC, Lillie, E, Zarin, W, O'Brien, KK, Colquhoun, H, Levac, D, Moher, D, Peters, MD, Horsley, T, Weeks, L, Hempel, S et al. PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. Ann Intern Med. 2018,169(7):467-473. doi:10.7326/M18-0850 [**1**]. Information on the PRISMA for Scoping Reviews is available at http://www.prisma-statement.org.

Table S2. Search strategies for electronic databases.

Database	Search strategy
PubMed (MEDLINE)	#1 "Autoimmune disease" [MESH] AND "Oral hygiene" [MESH] #2 "Autoimmune disease" [MESH] AND Periodontal disease" [MESH] #3 "Oral lichen planus" [MESH] OR (OLP) AND "Oral hygiene" [MESH] #4 "Oral lichen planus" [MESH] OR (OLP) AND "Periodontal disease" [MESH] #5 "Benign mucous membrane pemphigoid" [MESH] OR (PMM) AND "Oral hygiene" [MESH] #6 "Benign mucous membrane pemphigoid" [MESH] OR (PMM) AND "Periodontal disease" [MESH] #7 "Pemphigus vulgaris" [MESH] OR (PV) AND "Oral hygiene" [MESH] #8 "Pemphigus vulgaris" [MESH] OR (PV) AND "Periodontal disease" [MESH]
SCOPUS	#1 "Autoimmune disease" [MESH] AND "Oral hygiene" [MESH] #2 "Autoimmune disease" [MESH] AND Periodontal disease" [MESH] #3 "Oral lichen planus" [MESH] OR (OLP) AND "Oral hygiene" [MESH] #4 "Oral lichen planus" [MESH] OR (OLP) AND "Periodontal disease" [MESH] #5 "Benign mucous membrane pemphigoid" [MESH] OR (PMM) AND "Oral hygiene" [MESH] #6 "Benign mucous membrane pemphigoid" [MESH] OR (PMM) AND "Periodontal disease" [MESH] #7 "Pemphigus vulgaris" [MESH] OR (PV) AND "Oral hygiene" [MESH] #8 "Pemphigus vulgaris" [MESH] OR (PV) AND "Periodontal disease" [MESH]

Table S3. Summary table of studies excluded in this scoping review.

Excluded Studies	Exclusion Reasons
Nunes et al., 2022 **[2]**	Systematic review and meta-analysis
Sanadi et al., 2023 **[3]**	Systematic review and meta-analysis
Garcia-Pola et al., 2019 **[4]**	Systematic review
Albaghli et al., 2021 **[5]**	Systematic review
Sciuca et al., 2022 **[6]**	Narrative review
Peacock et al., 2017 **[7]**	Narrative review
Jascholt et al., 2016 **[8]**	Systematic review

Table S4. JBI critical appraisal checklist for case series.

	Yes	No	Unclear	Not applicable
Were there clear criteria for inclusion in the case series?	□	□	□	□
Was the condition measured in a standard, reliable way for all participants included in the case series?	□	□	□	□
Were valid methods used for the identification of the condition for all participants included in the case series?	□	□	□	□
Did the case series have consecutive inclusion of participants?	□	□	□	□
Did the case series have complete inclusion of participants?	□	□	□	□
Was there clear reporting of the demographics of the participants in the study?	□	□	□	□
Was there clear reporting of clinical information of the participants?	□	□	□	□
Were the outcomes or follow-up results of cases clearly reported?	□	□	□	□
Was there clear reporting of the presenting site(s)/clinic(s) demographic information?	□	□	□	□
Was statistical analysis appropriate?	□	□	□	□

Table S5. JBI critical appraisal checklist for RCTs.

Internal Validity		Yes	No	Unclear	N/A
1	Was true randomization used for the assignment of participants to treatment groups?	☐	☐	☐	☐
2	Was allocation to treatment groups concealed?	☐	☐	☐	☐
3	Were treatment groups similar at the baseline?	☐	☐	☐	☐
4	Were participants blind to treatment assignment?	☐	☐	☐	☐
5	Were those delivering the treatment blind to treatment assignment?	☐	☐	☐	☐
6	Were treatment groups treated identically other than the intervention of interest?	☐	☐	☐	☐
7	Were outcome assessors blind to treatment assignment?	Yes	No	Unclear	N/A
	Outcome 1	☐	☐	☐	☐
	Outcome 2	☐	☐	☐	☐
	Outcome 3	☐	☐	☐	☐
	Outcome 4	☐	☐	☐	☐
8	Were outcomes measured in the same way for treatment groups?	Yes	No	Unclear	N/A
	Outcome 1	☐	☐	☐	☐
	Outcome 2	☐	☐	☐	☐
	Outcome 3	☐	☐	☐	☐
	Outcome 4	☐	☐	☐	☐
9	Were outcomes measured in a reliable way?	Yes	No	Unclear	N/A
	Outcome 1	☐	☐	☐	☐
	Outcome 2	☐	☐	☐	☐
	Outcome 3	☐	☐	☐	☐
	Outcome 4	☐	☐	☐	☐
10	Was follow-up complete and if not, were differences between the groups in terms of their follow-up adequately described and analyzed?				
	Outcome 1	Yes	No	Unclear	N/A
	Result 1	☐	☐	☐	☐
	Result 2	☐	☐	☐	☐
	Result 3	☐	☐	☐	☐

	Outcome 2	**Yes**	**No**	**Unclear**	**N/A**
	Result 1	☐	☐	☐	☐
	Result 2	☐	☐	☐	☐
	Result 3	☐	☐	☐	☐
	Outcome 3	**Yes**	**No**	**Unclear**	**N/A**
	Result 1	☐	☐	☐	☐
	Result 2	☐	☐	☐	☐
	Result 3	☐	☐	☐	☐
	Outcome 4	**Yes**	**No**	**Unclear**	**N/A**
	Result 1	☐	☐	☐	☐
	Result 2	☐	☐	☐	☐
	Result 3	☐	☐	☐	☐
11	**Were participants analyzed in the groups to which they were randomized?**				
	Outcome 1	**Yes**	**No**	**Unclear**	**N/A**
	Result 1	☐	☐	☐	☐
	Result 2	☐	☐	☐	☐
	Result 3	☐	☐	☐	☐
	Outcome 2	**Yes**	**No**	**Unclear**	**N/A**
	Result 1	☐	☐	☐	☐
	Result 2	☐	☐	☐	☐
	Result 3	☐	☐	☐	☐
	Outcome 3	**Yes**	**No**	**Unclear**	**N/A**
	Result 1	☐	☐	☐	☐
	Result 2	☐	☐	☐	☐
	Result 3	☐	☐	☐	☐
	Outcome 4	**Yes**	**No**	**Unclear**	**N/A**
	Result 1	☐	☐	☐	☐
	Result 2	☐	☐	☐	☐
	Result 3	☐	☐	☐	☐
12	**Was appropriate statistical analysis used?**				

	Outcome 1	**Yes**	**No**	**Unclear**	**N/A**
	Result 1	☐	☐	☐	☐
	Result 2	☐	☐	☐	☐
	Result 3	☐	☐	☐	☐
	Outcome 2	**Yes**	**No**	**Unclear**	**N/A**
	Result 1	☐	☐	☐	☐
	Result 2	☐	☐	☐	☐
	Result 3	☐	☐	☐	☐
	Outcome 3	**Yes**	**No**	**Unclear**	**N/A**
	Result 1	☐	☐	☐	☐
	Result 2	☐	☐	☐	☐
	Result 3	☐	☐	☐	☐
	Outcome 4	**Yes**	**No**	**Unclear**	**N/A**
	Result 1	☐	☐	☐	☐
	Result 2	☐	☐	☐	☐
	Result 3	☐	☐	☐	☐
13	**Was the trial design appropriate, and where any deviations from the standard RCT design (individual randomization, parallel groups) accounted for in the conduct and analysis of the trial?**	**Yes**	**No**	**Unclear**	**N/A**
		☐	☐	☐	☐

Table S6. Evidence of studies included in this scoping review.

Authors and Year of Publication	Study Design	Methods	Results	Conclusions
Holmstrup et al., 1990 [**9**]	A total of 11 patients, all women, aged 43 to 76 years, with atrophic or ulcerative lichen planus lesions of gingiva were included. Follow-up examinations at 3-month intervals for 1 year.	Eleven patients, all women, aged 43 to 76 years, with atrophic or ulcerative lichen planus lesions of gingiva were included in this preliminary study. After an initial examination, the patients received an intensive individual hygiene treatment. The patients continued using the most appropriate, atraumatic method, resulting in the best possible oral hygiene over a 1-year period during which they were seen for follow-up examinations at 3-month intervals.	The mean plaque scores decreased after the initial treatment followed by an increase. The mean scores for severity of subjective symptoms and for type and extension of lesions initially decreased with the plaque scores and remained lower throughout the study.	It is concluded that in some cases, both subjective and objective improvement in atrophic and ulcerative gingival lichen planus may be obtained by means of intensive oral hygiene procedures, although such procedures do not remove the basic cause of lichen planus.
Guiglia et al., 2007 [**10**]	A total of 30 patients with DG associated with OLP. Plaque index (PI) and bleeding on probing (BoP) were evaluated at baseline and after 3 months.	A single-blind open clinical trial was designed, although it is known that the placebo-controlled type represents the ideal study design. This study included 30 patients, 25 (83.3%) women and five (16.7%) men; the mean age was 61.37 ± 11.22 years (range: 41–82). They were consecutively recruited among patients with OLP from July 2004 to June 2005. Plaque index (PI) and bleeding on probing (BoP) were evaluated at baseline and after 3 months.	PI scoring was significantly lower after treatment in anterior, posterior, and all sites ($P < 0.0001$) as well as in vestibular and lingual ones ($P < 0.0001$ and P ¼ 0.0001, respectively). BoP measures were found to be reduced significantly to 22.94% in a full-mouth evaluation ($P < 0.0001$; OR ¼ 2.633; 95% CI: 2.2685–3.0561) as well as in each specific site ($P < 0.0001$).	This clinical trial validated the efficacy, in patients with DG associated with OLP, of a protocol based on professional oral hygiene and self-performed plaque control measures in improving gingival health status.

López-Jornet et al., 2010 [**11**]	A total of 40 patients with gingival lichen planus. Follow-up examinations at 4 and 8 weeks after baseline.	A pre- and post-test descriptive clinical study was made of 40 consecutive white patients with gingival lichen planus: 5 males (12.5%) and 35 females (87.5%); mean age: 57 years. A motivation-behavioral skills protocol for oral hygiene was applied, with the determination of gingival scores (gingival index, plaque extension, and Community Periodontal Index of Treatment Needs (CPITN)) and patient evaluation after 4 and 8 weeks.	The clinical parameters in relation to the different forms of gingival lichen planus showed statistically significant improvements for gingival index, plaque extension, and CPITN (P <0.001), as determined 4 and 8 weeks after starting the program.	The application of an active prevention program in patients with gingival lichen planus is important because it offers benefits for periodontal health. However, more long-term studies are needed to confirm the obtained results.
Salgado et al., 2013 [**12**]	A total of 20 patients with lichen planus and gingival involvement. Follow-up examinations after 4 weeks from baseline.	Twenty patients diagnosed with gingival lichen planus confirmed by histopathological examination were selected. The patients were evaluated by a trained examiner with regard to the clinical features of the lesions (Index of Escudier); painful symptoms (Visual Analog Scale); and periodontally, with regard to the visible plaque and gingival bleeding indices. Periodontal treatment consisted of supragingival scaling and oral hygiene instruction, with professional plaque removal afterward for a period of 4 weeks. The entire sample was evaluated at baseline and at the conclusion of treatment, and the results were analyzed by the Wilcoxon nonparametric test.	Periodontal treatment resulted in statistically significant reduction ($P < 0.05$) in the periodontal indices, with consequent improvement in the clinical features and painful symptoms of the lesions.	It was demonstrated that plaque control was effective in improving the clinical features and painful symptoms of oral lichen planus with gingival involvement.

Stone et al., 2015 [**13**]	A total of 82 patients, divided into two groups, with lichen planus gingival lesions. Follow-up examinations after 4 and 20 weeks from baseline.	Eighty-two patients were recruited into a 20-week randomized controlled trial. The intervention was structured plaque control, comprising powered tooth brushing and inter-dental cleaning advice. The control subjects continued with their normal dental plaque control regimen. The primary outcome measure was the oral health impact profile (OHIP), with secondary outcomes of pain, plaque index, mucosal disease score, and cost-effectiveness.	Overall, the intervention patients showed statistically significant improvements in OHIP sum ordinal and OHIP dichotomous scores compared with control. There were improvements in the functional limitation, psychological discomfort, and physical disability domains at 4 and 20 weeks and in the psychological disability domain at 20 weeks. The intervention was successful in reducing plaque compared to control ($p < 0.001$), and improvements were observed using the mucosal disease indices at the 4- and 20-week follow-ups ($p < 0.001$).	A structured plaque control intervention was effective in improving the oral-health-related quality of life and clinically observed gingival lesions. This study provides evidence to include intensive plaque control within patients' initial and on-going management.
Bianco et al., 2019 [**14**]	A total of 32 patients, divided into two groups, with desquamative gingivitis. Follow-up examinations after 8 weeks from baseline.	A total of 32 patients affected by DG secondary to oral lichen planus (OLP) were consecutively recruited and randomly assigned to a test (n = 16) and control (n = 16) group. Both groups were enrolled in an intensive control program comprising supragingival scaling and polishing and brush-specific instructions for a period of 8 weeks. The treatment of interest (test) was the use of a sonic-powered toothbrush, and the standard treatment (control) was the utilization of a soft-bristle manual toothbrush for twice-daily home oral hygiene procedures. Periodontal parameters, patient-centered outcomes, MMP-1 and MMP-9 GCF levels were evaluated at baseline and 8 weeks after starting the program.	The plaque control program resulted in a statistically significant reduction in periodontal parameters with consequent improvement in the clinical features, painful symptoms, and severity of DG lesions in both groups (all $P < 0.001$). When a sonic toothbrush was used, there was a more significant decrease in clinical indices, mucosal disease scores, and GCF levels of MMP-1 and MMP-9.	This clinical trial reported the effectiveness of a combined protocol based on professional oral hygiene and supervised toothbrushing in OLP patients with DG. The daily use of a sonic toothbrush would seem to perform better in the short term.

Mergoni et al., 2019 [**15**]	A total of 60 patients, divided into two groups, with lichen planus gingival lesions. Follow-up examinations after 4 and 20 weeks from baseline.	Oral lichen planus patients with symptomatic gingival lesions were randomized in control and intervention groups. The intervention group was instructed to effectively remove bacterial biofilm from dental surfaces, while controls did not receive any advice. The outcome variables were as follows: quality of life (OHIP-14), pain, plaque index, and clinical severity of the disease (Escudier index). Outcome variables were assessed at 0, 4, and 20 weeks and analyzed using an ANOVA model for factorial design.	Data from 60 patients were collected. Regression analysis showed a significant positive trend of OHIP-14, plaque index, and Escudier index in the intervention group compared to controls ($p < 0.05$). Pain did not prove significantly different ($p = 0.408$).	Plaque control improved both OHIP-14 and gingival lesion clinical severity. Oral hygienists should be involved in the multidisciplinary management of patients affected by oral lichen planus with gingival lesions.

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