

Original Article

Assessment of Quality of Life in Patients with Chronic Oral Mucosal Diseases: A Questionnaire-based Study

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ABSTRACT

Aim and Objectives: The aim is to assess the quality of life (QOL) (any functional limitations, psychological limitations, and pre- and post-treatment anxiety levels) in patients with chronic oral mucosal disease (COMD). **Background:** Numerous studies have pointed out the incidence and prevalence of chronic oral mucosal lesions, though only a few have explained about QOL of these patients. The occurrence of oral mucosal diseases has a limitation on the QOL of the individual. Studies focusing on the QOL assessment in the Indian population are scanty. Hence, we carried out a study focusing on the QOL assessment. This study focuses on the assessment of QOL in patients with chronic oral mucosal lesions to make dentists aware and improve the holistic care for the patient. **Materials and Methods:** This study was administered as a closed-ended questionnaire survey to patients with various types of mucosal diseases. The responses collected were analyzed for specific associations between the diseases and the QOL. **Results:** We observed that COMDs affected a wide range of ages, majority being 51–60 years (28%). Recurrent aphthous ulcers and oral submucous fibrosis (OSMF) adversely affected the QOL more than the other COMDs subgroups did. Among different disease groups, patients with recurrent aphthae had the worst QOL: 73.67 ± 5.68 . Significant differences were observed between various groups: leukoplakia and OSMF, leukoplakia and recurrent aphthae, lichen planus and OSMF, and lichen planus and recurrent aphthae. **Conclusion:** Even after treatment, COMDs negatively affect the patients' QOL. Use of the Chronic Oral Mucosal Diseases Questionnaire may allow physicians to more effectively care for their patients with these diseases.

KEYWORDS: *Chronic oral mucosal disease, oral health, quality of life*

Received: August, 2016.

Accepted: May, 2017.

INTRODUCTION

Chronic oral mucosal diseases (COMDs) are a diverse group of autoimmune, inflammatory, and infectious conditions that can affect the soft tissues of the mouth. Some of the most commonly encountered COMD in dental practice includes recurrent aphthous ulcers, oral submucous fibrosis, leukoplakia, oral lichen planus, and pemphigus. Although the majority of oral diseases are not fatal, they can give rise to significant morbidity, resulting in physical, social, and psychological consequences, and influencing the “goodness” or “quality of life (QOL).”^[1] In 1994, the World Health Organization, defined QOL as “the individual’s perception of his or her

position in life, within the cultural context and value system he or she lives in, and in relation to his or her goals, expectations, standards and concerns.”^[2] QOL questionnaires can provide an important role in therapy because they can help patients communicate with their physicians in an objective fashion about the subjective conditions associated with their illness. Clinicians may be considered experts at observation of disease activity, and with effective QOL questionnaires, patients can help make decisions about their treatment.^[3] The aim of the study was to measure the QOL after therapy in patients

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How to cite this article: Namrata M, Kumar VJ. Assessment of quality of life in patients with chronic oral mucosal diseases: A questionnaire-based study. *Int J Orofac Biol* 2017;1:24-7.

Access this article online	
Quick Response Code: 	Website: www.ijofb.org
	DOI: 10.4103/ijofb.ijofb_3_16

with COMD using the Chronic Oral Mucosal Diseases Questionnaire (COMDQ). This study sought to assess the role of pain and functional limitation, efficacy of the medication and treatment, social and emotional status, and patient support in determining subjects' overall QOL.

MATERIALS AND METHODS

The study sample comprised 100 patients receiving treatment who had a clinical diagnosis of COMD. Study subjects had to be older than age 16 years. In addition to recurrent aphthous ulcers, oral lichen planus, and pemphigus, the following other COMDs were seen in study participants: oral submucous fibrosis (OSMF) and leukoplakia. Diagnoses were based on history, clinical examination findings, laboratory test results, and histopathologic findings where appropriate. Individuals with COMD who did not undergo any treatment, patients who found it difficult to understand the questions, and mentally disabled patients were excluded from the study. The data were entered and proofread. The numerically coded responses were entered into a computer spreadsheet (Microsoft Excel 2010, Microsoft, Redmond, WA, USA), before being imported into the data editor of analytics software (SPSS version 15.0, SPSS Inc., Chicago, IL, USA) for analysis.

RESULTS

Patients were divided into five disease categories: oral lichen planus, recurrent aphthous ulcers, pemphigus, leukoplakia, and OSMF. We observed that COMDs affected a wide range of ages: <20 years (10%), 21–30 years (14%), 31–40 years (12%), 41–50 years (18%), 51–60 years (28%), and >60 years (18%). The overall COMDQ scores by disease are displayed in Table 1. Maximum mean of scores is seen in recurrent aphthae, followed by pemphigus, then OSMF, followed by leukoplakia and finally lichen planus.

Disease group-specific scores on the COMDQ are reported in Tables 2 and 3. Recurrent aphthous ulcers and OSMF adversely affected the QOL more than the

other COMD subgroups did. Among different disease groups, patients with recurrent aphthae had the worst QOL: 73.67 ± 5.68 .

Significant differences were observed between various groups: leukoplakia and OSMF, leukoplakia and recurrent aphthae, lichen planus and OSMF, and lichen planus and recurrent aphthae.

DISCUSSION

In this study, we found that COMD significantly affected the patients' QOL, which was influenced by pain and functional limitation, medication and treatment, and social and emotional status of the patient. Llewellyn and Warnakulasuriya^[4] evaluated oral diseases such as recurrent aphthous ulcers, oral lichen planus, oral candidiasis, dry mouth, burning mouth, and other temporomandibular joint disorders using the Oral Health Impact Profile-14 and observed that COMD can have a serious impact on patients' oral health-related QOL. Mumcu *et al.*^[5] evaluated the effect of disease activity in Behçet's disease and recurrent aphthous ulcers using an oral health-related QOL. Those patients with active oral ulcers reported poorer oral health-related QOL compared with ulcer-free patients. Hegarty *et al.*^[6] found that increase in pain evaluated by a visual analog scale score was associated with poor oral health-related QOL in patients with oral lichen planus. In our study, looking at the specific domains of the COMDQ, we observed that pain, physical status, and patient's psychological status were equally affected in patients with oral lichen planus.^[6] The existing literature shows that oral health problems can result in pain and discomfort and can lead to problems in eating, interpersonal relationships, appearance, and self-image.^[7,8] Therefore, pain and functional limitation secondary to disease should be properly evaluated and treated when possible to help improve the patient's QOL. Tabolli *et al.*^[9] found that administration of specific and generic questionnaires provided a detailed picture of the impact of oral diseases on patients, which adds information that may be useful in clinical practice. The COMDQ, being a single discipline-specific questionnaire, could help

Table 1: Overall scores on Chronic Oral Mucosal Disease Questionnaire

Disease	n	Mean of total scores±SD	Range of scores		Minimum scores	Maximum scores
			Lower limit	Upper limit		
Leukoplakia	21	10.3333±3.19896	8.8772	11.7895	5.00	17.00
Lichen planus	15	9.8667±2.87518	8.2744	11.4589	6.00	14.00
OSMF	26	12.4231±1.85845	11.6724	13.1737	9.00	15.00
Pemphigus	1	13.0000±0	0	0	13.00	13.00
Recurrent aphthous	37	13.4324±1.90818	12.7962	14.0687	11.00	18.00
Total	100	11.9800±2.74499	11.4353	12.5247	5.00	18.00

SD: Standard deviation, OSMF: Oral submucous fibrosis

in the analysis of both physical and psychological evaluation of QOL. The use of this questionnaire for the evaluation of QOL may help give a greater focus to the limited time available at follow-up appointments. These outpatient visits have often concentrated on the symptomatic exacerbation of COMD to the exclusion of other aspects of a patient's health. The COMDQ may allow the patient to assist in the evaluation and

assessment of treatment effectiveness. It could supply valuable information regarding the patient's perspective on his/her COMD, which helps the clinician to modify the treatment provided following this in-depth evaluation.^[10]

CONCLUSION

The clinical evaluation of COMD, by including dentists and physicians, may give information about the cause, can aid in determining potential treatments, and can also provide clues about the prognosis but may not directly reflect the resulting level of impairment. This is where QOL measurements can play a key role by helping evaluate the more subjective dimensions of the disease and its treatment. These measurements must be simple and practical enough for the clinician and patient to use and interpret, but at the same time include all the factors that can affect the disease burden. The COMDQ was found to be reliable, simple to use, and sensitive to clinical parameters and treatment modalities. A limitation to this report was that it was based on a sample of convenience and had no control group. The COMDQ can be successfully administered to assess the oral health-related QOL as a part of the routine management of COMD. The COMDQ may be useful in the future clinical trials.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Table 2: Disease group-specific scores on Chronic Oral Mucosal Disease Questionnaire

Disease	n	Mean±SD	P
Pain and functional limitation			
Leukoplakia	21	4.8571±1.76878	0.000*
Lichen planus	15	5.2000±1.61245	
OSMF	26	7.5385±1.63048	
Pemphigus	1	7.0000±0	
Recurrent aphthae	37	8.1622±1.28048	
Total	100	6.8500±2.07133	
Medication and treatment			
Leukoplakia	21	3.4286±1.74847	0.337
Lichen planus	15	2.4667±1.55226	
OSMF	26	2.7308±1.18516	
Pemphigus	1	3.0000±0	
Recurrent aphthae	37	2.7297±1.48415	
Total	100	2.8400±1.48881	
Social and emotional			
Leukoplakia	21	2.0476±1.16087	0.417
Lichen planus	15	2.2000±0.86189	
OSMF	26	2.1538±1.08415	
Pemphigus	1	3.0000±0	
Recurrent aphthae	37	2.5405±1.12038	
Total	100	2.2900±1.08521	

SD: Standard deviation, OSMF: Oral submucous fibrosis,

*Statistically significant

Table 3: Post hoc analysis showing the subgroups with difference

Multiple comparisons	Dependent variable (P)			
	Pain and functional limitation	Medication and treatment	Social and emotional	Overall
Leukoplakia				
Lichen planus	0.912	0.228	0.976	0.938
OSMF	0.000*	0.382	0.987	0.018*
Recurrent aphthae	0.000*	0.317	0.349	0.000*
Lichen planus				
Leukoplakia	0.912	0.228	0.976	0.938
OSMF	0.000*	0.947	0.999	0.007*
Recurrent aphthae	0.000*	0.938	0.735	0.000*
OSMF				
Leukoplakia	0.000*	0.382	0.987	0.018*
Lichen planus	0.000*	0.947	0.999	0.007*
Recurrent aphthae	0.392	1.000	0.507	0.352
Recurrent aphthae				
Leukoplakia	0.000*	0.317	0.349	0.000*
Lichen planus	0.000*	0.938	0.735	0.000*
OSMF	0.392	1.000	0.507	0.352

OSMF: Oral submucous fibrosis, *Statistically significant

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