Mohammed Hammoudeh¹, Ahmed Al-Momani², Husam Sarakbi¹, Prem Chandra³, Samer Hammoudeh⁴

¹ Department of Medicine, Hamad Medical Corporation, Doha, Qatar ² Department of Dentistry, Hamad Medical Corporation, Doha, Qatar ³ Medical Research Center, Hamad Medical Corporation, Doha, Qatar
⁴ Research Department, Weill Cornell Medical College - Qatar, Doha, Qatar

Introduction

Oral manifestations of systemic lupus erythematosus (SLE) are frequently encountered, and may include ulceration, honeycomb plaque, raised keratotic plaque, non-specific erythema, purpura, petechiae, and cheilitis. Research shows that 25% of SLE patients have oral mucous membrane and lip involvement with possible petechiae. Both xerostomia and hyposalivation predispose patients with SLE to dental caries, recurrent noninfectious pharyngitis, and oral ulcerations. Oral candidiasis and infections are also common due to corticosteroid use. The most common oral manifestation in SLE patients is oral ulcerations, with a prevalence rate ranging between 7 and 41%. The severity of these ulcerations increases as the disease progresses. An oral lesion prevalence rate of 8-45% has also been reported for SLE patients.

Objectives

The goal of this study was to examine the prevalence of oral manifestations in SLE patients in Qatar to inform future detailed investigations of these manifestations.

Methods

The study took place between November 2014 and April 2016. All patients visiting the outpatient rheumatology clinics at Hamad General Hospital, Doha, Qatar, were invited to participate. Those meeting the American College of Rheumatology (ACR) 1997 criteria of SLE, and willing to participate joined the study. Those not meeting the criteria, or not able or capable to tolerate the study procedures were excluded. A waiver of consent form was obtained from the IRB at the same institution and provided IRB approval for the study (14301/14). Patients were initially examined by a rheumatologist and later scheduled for an oral examination with a dentist at the same institution. A total of 77 patients were recruited for the study. Only 42 patients attended their dental appointments.

Results

The sample had a mean age of 38.31 ± 10.65 years and was mainly comprised of females, with a female: male ratio of 9.5:1.

	N	%		N	%
Age (years)			SLE activity		
18-29	11	26.2	Active	8	19.0
30-49	25	59.5	Inactive	34	81.0
≥ 50	6	14.3			
Gender			On steroids		
Male	4	9.5	No	18	42.9
Female	38	90.5	Yes		
			1-10 mg	20	47.6
			11-30 mg	3	7.1
			≥ 31	1	2.4
Education			On immunosuppressant		
High school	16	38.1	Yes	15	35.7
University	26	61.9	No	27	64.3
SLE duration			Dry mouth		
≤ 8 years	21	50.0	Yes	14	33.3
> 8 years	21	50.0	No	28	66.7

Table 1. Demographic and medical data of the study sample.

Gingivitis, periodontal disease, cavitation, and missing teeth were observed in more than 50% of the sample. The dental examination revealed that 54.8% (95% CI 39.9, 68.8) of the sample had a form of gingivitis. Gingivitis prevalence was higher in those with an SLE duration ≤ 8 years (62% vs. 48%, P = 0.352). Localized gingivitis was found more commonly among those with SLE duration ≤ 8 years (57% vs. 38%); however, this difference was not significant (P = 0.448).

Figure 1: Number of cases and type of gingivitis.

57.1% of the sample had periodontal disease. Significantly more participants with an SLE duration > 8 years had periodontal disease compared to those with an SLE duration ≤ 8 years (81% vs. 33%, P = 0.002). Localized periodontal disease was found more commonly among those with an SLE duration of > 8 years (43% vs. 33%, P = 0.119).

Figure 2: Number of cases and type of periodontal disease.

88.1% of the sample had cavities, and 64.3% had missing teeth. Figure 3 compares ≤ 8 to > 8 years SLE duration, with regard to cavities (90.5% vs. 85.7%, P = 0.634) and missing teeth (61.9% vs. 66.7%, P = 0.747).

Figure 3: Number of cases with cavities and missing teeth.

Conclusion

- This pilot study found high rates of gingivitis, periodontal disease, cavities, and missing teeth among SLE patients in Qatar.
- We recommended that health care providers monitor oral manifestations in such patients to enable early treatment and prevention efforts.
- Future longitudinal studies are needed to ascertain causative factors or common etiologies.

Sources:
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