Original Article

Prevalence of Oral and Maxillofacial Cases Attended in Shar Hospital along Two Years

Teshw F. Majeed[1], Shanaz M. Gafor[2]*

Abstract

Objective: The Prevalence of oral and maxillofacial diseases is highly variable depending on the region, country, and data source. The study was designed to assess the Prevalence of all oral and maxillofacial cases in a reported sample from outpatients who attended the teaching clinics, Shar Hospital, in Sulaymaniyah city.

Methods: A retrospective study was carried out in the Shar Teaching Hospital in Sulaymaniyah city from Jan 2018 to Jan 2020 for multidisciplinary dental and maxillofacial disease treatment. The data retrieved from the hospital files out of 817 patients, 554 met with the required information. Statistical analysis was performed using a statistical package for social science (SPSS version 16). In addition, chi-square tests were used for comparative analysis.

Results: Out of 554 patients, more than half were females, 58.7 %, while males accounted for the remaining 41.3 %. The majority of patients were aged 20-39 years 42.2%. Dental and gingival pain were the patients' most frequent chief complaints, 24.9%, with the highest percentage in 20-39 age groups (11.6%). The most common diagnosis was dental and periodontal diseases (29.8%), followed by temporomandibular joint disorders (25.8%).

Conclusions: Dental and gingival pain was the most common chief complaints, followed by temporomandibular joint pain and intraoral ulceration, and more common in the 20-39 age groups population. The most frequent diagnosis reported cases were dental and periodontal diseases followed by temporomandibular disorders and ulcerative /immunological lesions. Females were more frequently diagnosed with gender.

Keywords: *Dental, Oral, Maxillofacial diseases, TMJ.*

Submitted: June 2, 2021, Accepted: September 18, 2021, Published: December 1, 2021.

Cite this article as: Majeed TF, Gafor SM. Prevalence of Oral and Maxillofacial Cases Attended in Shar Hospital along Two Years. Sulaimani Dent J. 2021;8(2):41-47.

https://doi.org/10.17656/sdj.10139

1. *Trainee in Kurdistan Board of Medical Specialties, Sulaimani, Iraq.*
2. *Chairperson, Dentistry Department, Komar University of Science and Technology, Sulaimani, Iraq.*

** Corresponding author: Teshu.faraidun@gmail.com*

Published by College of Dentistry, University of Sulaimani

Introduction

The Prevalence of oral and maxillofacial diseases is highly variable depending on the region, country, and data source[1]. However, oral and maxillofacial diseases can interfere with affected patients' daily quality of life through mastication, swallowing, and speech with symptoms of burning, irritation, pain, halitosis, xerostomia, or oral dysesthesia[2,3].

Among the many sources that lead to changes in the oral mucosa are infections from bacteria, fungi, viruses, parasites, and other agents; physical and thermal trauma; immune system, systemic diseases, neoplasms, and other factors are due to aging[4,5].

Oral disease is a health problem that is not only a matter of oral hygiene and local conditions. Still, it may also be a precursor to the more dangerous and potentially life-threatening illness[6].

The proper management of a patient with an oral condition starts with an accurate diagnosis. Some oral diseases can be diagnosed by verifying data gathered during a history and physical examination; While others need further confirmation through a specialized procedure like histopathological examination[7].

A significant element to provide a diagnosis is knowledge of the lesions' relative frequency or Prevalence at one point in time[8].

Many isolated studies focused only on the Prevalence of oral mucosal lesions in Sulaymaniyah[9-11] and other cities of Iraq[12,13]. In Sulaymaniyah city, there is a great need for clinical studies to establish baseline data on the Prevalence of oral and maxillofacial diseases.

The objective of this study was designed to assess the Prevalence of all oral and maxillofacial cases in an archived sample from outpatients who attended Shar Teaching Hospital in Sulaymaniyah city.

Materials and methods

This study is a descriptive cross-sectional retrospective study based on clinical records of outpatients in the oral and maxillofacial medicine center at the Shar Teaching Hospital in Sulaymaniyah city from Jan 2018 to Jan 2020. The patients'

demographic (age, gender) information, the chief complaints, and clinical features (anatomical, location of the lesions, registered biopsies or other diagnostic procedures, and the final diagnosis) were retrieved from the archives for each patient.

Patients with missing information were excluded from the study. The maxillofacial specialist did restatement of the chief complaints to define the problem clearly. Final diagnosis included both clinical diagnosis (depend on the present history, clinical features associated with laboratory and radiological finding) and surgical pathological diagnosis (depend on the surgical or fine-needle aspiration biopsies when indicated).

The oral and maxillofacial conditions were classified into 12 main groups according to the worldwide accepted Oral Pathology and Oral Medicine compendium[14], with minor modifications and adjustments to the recent concept in oral medicine. An additional 13th group was included in the miscellaneous conditions and normal non-pathological findings. The main groups included:

Soft tissue tumors, dental and periodontal disease, allergy or hypersensitivity reaction, malignant epithelial tumors, mucosal infection, ulcerative/ immunological lesion, pain and neurological disorders, oral pigmented lesion, salivary diseases, and tumors, temporomandibular joint diseases, tongue disorders, and white lesions.

Statistical analysis

Statistical association between variables was obtained by employing a statistical package for social science (SPSS-16). The Chi-square test was used for comparative analysis. Significant levels of $p \leq 0.05$ were established.

Results

A total of 817 registered cases in the maxillofacial medicine department at the SHAR Teaching Hospital, from January 2018 to January 2020, 554 cases were included. Females were 58.7 % (n=325) and males were 41.4 % (n=229). The mean age of the patients was 35 years old (ranging from 2 months to 86 years). The sample consisted of 18.1% (n=100) of cases with age <20 years, 42.2% (n=234) of cases were between 20-39 years, 31.2% (n=173) of cases were between 40-59 years, and 8.48 % (n=47) of cases were≥60years, (Table 1).

Dental and gingival pain was the complaining of (138cases, 24.9%), followed by temporomandibular joint pain (n=127, 22.9%), intraoral ulceration (n=81, 14.6%). However, chief complaints were more in the age group 20-39. No significant relation was found

between age groups and chief complaints (p=0.37) (Table 2).

Concerning the diagnosis, dental and periodontal diseases represented the most common frequent group, 29.78% (n=165), followed by temporomandibular joint disorders, 25.81% (n=143), ulcerative/ immune-bullous lesions 11.73% (n=65), soft tissue tumours 7.9% (n=44), and the least diagnosed diseases were oral pigmented lesions 0.2% (n=1). Finally, no significant relation was detected between all oral lesions and gender (p=0.34) (Table 3).

Table1: Classification of oral and maxillofacial diseases in this study.

Main group	Diagnosed lesions
Benign soft tissue tumors	denture granuloma, fibroma, lipoma, pyogenic granuloma, vascular malformation, angina bullosa hemorrhagic, lymph node enlargement
Dental and periodontal disease	dental caries, pulpitis, gingivitis, pericoronitis, cellulitis, periapical lesions, dry socket, odontogenic cyst
Allergy or hypersensitivity reaction	allergic stomatitis, angioedema
Epithelial Malignant tumors	basal cell carcinoma, squamous cell carcinoma
Miscellaneous	cleft lip and palate, halitosis, xerostomia
Mucosal infection	candida infection, herpes simplex virus, herpes zoster, papillomavirus
Ulcerative/immunological lesions	aphthous ulceration, traumatic ulceration, Behcet disease, pemphigus Vulgaris, erythema multiform
Pain and neurological disorders	atypical facial pain, bells palsy, burning mouth syndrome, cluster headache, trigeminal neuralgia
Salivary diseases and tumors	mucocele, mumps, pleomorphic adenoma, sialadenitis, sialoliths
Temporomandibular joint diseases	anterior disk displacement, condylar hyperplasia, myo-facial dysfunction syndrome
Tongue disorders	ankyloglossia, fissured tongue, geographic tongue, hairy tongue, lingual varicosities
White lesion	lichen planus, Fordyce granule
Oral pigmented lesion	nevus

Table 2: Demographic feature of the patients in the study.

		Numbers	%
Gender	Male	229	41.3
	Female	325	58.7
	Total	554	100.0
Age groups	<20	100	18.1
	20-39	234	42.2
	40-59	173	31.2
	≥60	47	8.5
	Total	554	100.0

Table 3: Distribution of chief complaints according to age groups.

Chief complaints		Age groups percentage				Total
		<20	20-39	40-59	≥60	
Dental and gingival pain	No.	26	64	40	8	138
	%	4.7	11.6	7.2	1.4	24.9
Temporomandibular joints pain	No.	19	54	43	11	127
	%	3.4	9.7	7.8	2	22.9
Intra oral ulceration	No.	17	26	28	10	81
	%	3.1	4.7	5.1	1.8	14.6
Intraoral mass	No.	8	20	14	2	44
	%	1.4	3.6	2.5	0.4	7.9
Sore mouth	No.	1	13	10	3	27
	%	0.2	2.3	1.8	0.5	4.9
Intraoral swelling	No.	5	12	4	3	24
	%	0.9	2.2	0.7	0.5	4.3
Extraoral mass	No.	2	6	9	2	19
	%	0.4	1.1	1.6	0.4	3.4
Facial swelling	No.	3	10	5	1	19
	%	0.5	1.8	0.9	0.2	3.4
Bad odor	No.	4	6	4	1	15
	%	0.7	1.1	0.7	0.2	2.7
Clicking on TMJ	No.	2	9	1	0	12
	%	0.4	1.6	0.2	0	2.2
Unilateral facial pain	No.	0	3	4	2	9
	%	0	0.5	0.7	0.4	1.6
Limitation in tongue movement	No.	2	2	4	0	8
	%	0.4	0.4	0.7	0	1.4
Paresthesia/numbness*	No.	2	2	2	1	7
	%	0.4	0.4	0.4	0.2	1.3
Intraoral white lesions	No.	4	1	0	1	6
	%	0.7	0.2	0	0.2	1.1
Lock joint	No.	1	2	0	1	4
	%	0.2	0.4	0	0.2	0.7
Discoloration	No.	0	0	1	0	1
	%	0	0	0.2	0	0.2
Facial cleft	No.	1	0	0	0	1
	%	0.2	0	0	0	0.2
Check up	No.	3	4	4	1	12
	%	0.5	0.7	0.7	0.2	2.2
Total	No.	100	234	173	47	554
	%	18.10	42.20	31.20	8.50	100.0
P value = 0.37 Chi-square test with df=51						

Table 4: Distribution of diagnosis of oral and maxillofacial diseases according to gender.

Diagnosis	Gender		Female	Total
		Male		
Dental and periodontal disease	No.	73	92	165
	%	13.2	16.6	29.8
Temporomandibular joints disorders	No.	46	97	143
	%	8.3	17.5	25.8
Ulcerative / immune-bullous lesions	No.	35	30	65
	%	6.3	5.4	11.7
Benign soft tissue tumors	No.	15	28	43
	%	2.7	5.1	7.7
Salivary gland diseases and tumors	No.	14	13	27
	%	2.5	2.3	4.9
Pain and neurological disorders	No.	10	15	25
	%	1.8	2.7	4.5
Oral mucosal infections	No.	8	12	20
	%	1.4	2.2	3.6
Tongue disorders	No.	6	13	19
	%	1.1	2.3	3.4
Miscellaneous	No.	7	9	16
	%	1.3	1.6	2.9
Allergy and hypersensitivity reactions	No.	5	4	9
	%	0.9	0.7	1.6
White lesions	No.	3	3	6
	%	0.5	0.5	1
Malignant epithelial tumors	No.	1	2	3
	%	0.2	0.4	0.5
Oral pigmented lesion	No.	1	0	1
	%	0.2	0	0.2
No pathological finding	No.	5	7	12
	%	0.9	1.3	2.2
Total	No.	229	325	554
	%	41.30%	58.70%	100.00%
P value = 0.34 Chi-Square test with df= 13				

Discussion

The present study aimed to show the frequency of oral and maxillofacial diseases diagnosed in a set of patients who attended oral and maxillofacial medicine services inside Sulaymaniyah city over two years. Most of the patients were from the hospital's outpatient department, and others were referred from public dental and medical services or other admission departments from the same hospital. Assessments between other studies are frequently tough and laborious, as they commonly show different methodological assays.

According to the gender distribution, there was a female predominance (58.7%) in the present study compared to males 41.4%); this is in agreement with the findings in other studies[1,10-12,15,16] while disagreeing with the finding. For example, Gambhir et al.[7] reported that males (59%) were more than females (41%). This finding could probably be because females are sensitive and care more about their general and oral health than males.

Selecting population by age groups provides particular information; therefore, it needs to be analyzed separately. In this study, the highest Prevalence of oral

and maxillofacial diseases was in (20-39) years such the result is in agreement with the study of Amen et al.[11], (60.52%) and the study of Essa and Fadil[12] (50.2%), Probably because younger aged groups have higher educational levels about oral and general health.

Many studies focused on the Prevalence of oral lesions, but few of them focused on the chief complaints of the patients[9,15,16]. In the current study, the most common chief complaint was dental and gingival pain 24.9%. This result agrees with the Lebanese study[15] and Iraqi study[18] that reported the most common complaint was a pain in the tooth and gingiva. The second common chief complaint was temporomandibular joint pain (22.9%), which disagreed with the result of Abdullah & Al-Tuhafi[16] that reported checkups as the second most common chief complaint (24.38%).

This study's most common maxillofacial and oral problems were dental and periodontal diseases followed by temporomandibular joint disorders and ulcerative /immune-bullous lesions. While Abid and Majeed did studies[13] and Simone et al.[1] found ulcerative lesions as the most commonly reported diseases. In another study done in Northern India[7], soft tissue tumors were the commonly diagnosed lesions. Gaphor and Abdullah did a study in Sulaymaniyah[9] that found that the most common lesions were tongue lesions (9.7%). Likely because similar studies mainly were focused on oral lesions or different criteria for data collection.

Dental and periodontal diseases were common diagnoses in the current study that most patients attended for dental and gingival problems. The result was in agreement with Zaheda's study[18] that found (85%) of diagnosis diseases were dental and periodontal diseases.

In the current study, temporomandibular joint disorders were found to be higher in females than males, and this result was in agreement with the study performed by Essa and Fadil[12]. It can be related to different factors that affect the temporomandibular joint, such as stress and psychological problem that present mostly among females.

In the present study, ulcerative and immune-bullous lesions were slightly higher in males than females, which was in agreement with the result of a study done by Essa and Fadil[12], who found a higher prevalence of ulcerative lesions among males. Conversely, Abid and Majeed[17] reported ulcerative lesions to be more common in females.

The study of Essa and Fadel[12] reported the least common lesion tongue lesion (33.7%). Which the result disagrees with this study that least common lesion pigmented lesion (0.2%), while the result agrees with the study[19] reported least common lesion pigmented lesion (4.08%).

Conclusions

Though dental and gingival diseases are still the most common problems among the population, however, there are many other oral and maxillofacial diseases affecting the oral, head, and neck regions. The subjective feeling of pain was the leading cause for most of the patients seeking dental care. The most frequent diagnosis reported cases were dental and periodontal diseases followed by temporomandibular disorders, while oral and maxillofacial lesions showed various proportions. It is worth mentioning that combining patients compliant with examination findings is essential to accurate diagnosis and early treatment of oral and maxillofacial diseases. Higher educational level among the young population is impacting on early diagnosis of diseases with better prognosis. Females have a relative percentage of oral and maxillofacial diseases than males because females are more careful about their oral and general health.

References

1. Simone de Macedo Amaral, Águida Maria Menezes Aguiar Miranda, Juliana de Noronha Santos Netto FRP. Prevalence of oral and maxillofacial diseases diagnosed in an Oral Medicine service during a7-year period. J Oral Diagnosis. 2016;1(1):1.
2. Feng J, Zhou Z, Shen X, Wang Y, Shi L, Wang Y, et al. Prevalence and distribution of oral mucosal lesions: a cross-sectional study in Shanghai, China. J Oral Pathol Med. 2015;44(7):490–4.
3. Triantos D. Intra-oral findings and general health conditions among the institutionalized and non-institutionalized elderly in Greece. J Oral Pathol Med. 2005;34(10):577–82.
4. Reichart PA. Oral mucosal lesions in a representative cross-sectional study of aging Germans. Community Dent Oral Epidemiol. 2000;28(5):390–8.
5. Jainkittivong A, Aneksuk V, Langlais RP. Oral mucosal conditions in elderly dental patients. Oral Dis. 2002;8(4):218–23.
6. Soames JV, Southam JC. Oral pathology. Oxford University Press; 2005.

7. Gambhir RS, Veeresha KL, Sohi R, Kakkar H, Aggarwal A, Gupta D. The Prevalence of oral mucosal lesions in the patients visiting a dental school in Northern India in relation to sex, site and distribution: a retrospective study. J Clin Experi Dent. 2011;3(1):10-7.
8. Shulman JD, Beach MM, Rivera-Hidalgo F. The Prevalence of oral mucosal lesions in US adults: data from the Third National Health and Nutrition Examination Survey, 1988–1994. J Am Dent Assoc. 2004;135(9):1279-86.
9. Gaphor SM, Abdullah MJ. Prevalence, sex distribution of oral lesions in patients attending an oral diagnosis clinic in Sulaimani University. Sci J Publ. 2011;23(3)63-7.
10. Gaphor SM, Abdullah MJ. Clinicopathological analysis of common oral lesions. J Bagh Coll Dent. 2013;25(2):101-7.
11. Amen FM, Hussein SA, Abdullah MJ. Prevalence of oral mucosal lesions in patients attending oral diagnosis clinic at school of dentistry, university of Sulaimanya. IOSR J Dent Med Sci. 2015;14(6):62-6.
12. Al-Essa HS, Fadil AG. The profile of oral lesions in patients attending oral diagnosis clinic at the College of Dentistry, University of Basra, Iraq. Int J Med Res Heal Sci. 2019;8(4):23-9.
13. Majeed AH, Abid KJ. Prevalence of oral mucosal lesions in Missan governorate. J Baghdad Coll Dent. 2009;21(2):68-71.
14. Odell EW. Cowson's essential of oral pathology and oral medicine e-book. Elsevier Health Science:2017.
15. El Toum S, Cassia A, Bouchi N, Kassab I. Prevalence and distribution of oral mucosal lesions by sex and age categories: A retrospective study of patients attending Lebanese school of dentistry. Int J Dent. 2018;(4):1-6.
16. Abdullah BA, Al-Tuhafi AAH. Chief complaints of patients attending college of dentistry at Mosul University. Al-Rafidain Dent J. 2007;7(2):201–5.
17. Al-Mobeeriek A, Al-Dosari AM. Prevalence of oral lesions among Saudi dental patients. Ann Saudi Med. 2009;29(5):365-8.
18. Zaheda JM. Pain complaints of patients attending oral medicine clinic. Mustansiria Dent J. 2009;6(2):191-7.
19. Kamble KA, Guddad SS, Nayak AG, Suragimath A, Sanade AR. Prevalence of oral mucosal lesions in Western Maharashtra: a prospective Study. J Ind Acad Oral Med Rad. 2017;29(4):282-7.