

STATISTICAL ANALYSIS FOR THE COMMONEST ORAL SOFT TISSUE DISEASES AMONG THE STUDY OF 1655 IRAQI PATIENTS DURING THE YEAR 2006 ⁺

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Abstract:

Statistical analysis was conducted among 1655 diagnosed studied cases of Iraqi patients with different sexes and ages during the year 2006. This study evaluated the most important oral soft tissue diseases affected Iraqi people during the year 2006 in limited area of Baghdad city. Also this recent study revealed that gingival and periodontal diseases formed about 35% of the total studied oral lesions, and also formed the highest number of these lesions. This study reflected that the pathological processes represented by oral lesions were mostly inflammatory and reactive in nature. The sex, age and the anatomical site affected differed from one pathological entity of diseases to another.

المستخلص

هذه الدراسة التحليلية الإحصائية أجريت على ١٦٥٥ حالة مشخصة لمرضى عراقيين من منطقة البلديات والأماكن المجاورة لها في بغداد في إحدى العيادات الطبية الشعبية والغرض منها هو معرفة أشهر الأمراض التي تصيب النسيج الرخو للفق. هذه الإحصائية جمعت وشخصت وتم تحليلها إحصائياً وهذه الحالات جميعها تم تقييمها خلال العام ٢٠٠٦. هذه الدراسة أثبتت بأن أمراض اللثة وأمراض ما حول الأسنان تشكل ٣٥% من الحالات المرضية المدروسة وتشكل أعلى نسبة فيها. كذلك أثبتت هذه الدراسة بأن العمليات المرضية الممثلة لآفات أنسجة الفم الرخوة معظمها التهابية وذات استجابة في طبيعتها. أما الجنس، العمر، والموضع التشريحي للمرض فيختلف من مجموعة مرضية إلى أخرى وينسب متفاوتة ومقارب إلى الإحصاءات العالمية في هذا الجانب.

Introduction :

The dental Practitioner must be aware of pathological processes that may affect the oral soft tissues. Although many diseases can occur in the oral tissues, it is very important that the dentist recognizes which entity of diseases are more likely to occur than others.[1]

Oral prevalence study are important to know the state of health and the needs of treatment.

Oral healthy service data are essential for governmental decisions about dental care and preventive programs.[2]

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Statistical analysis mostly used to assess the influence of age, sex, anatomical affected site and other factors that play a role in analytic processes concerning the relative frequency of various lesions diagnosed histopathologically or by dental profession.[3]

The diagnosis and treatment of the oral soft tissue lesions have long been problems facing the dental Practitioner, although this practice has always been recognized as an important aspect of patient service.

Many Practitioners lack the level of experience in their relative experience dealing with the diagnosis and treatment of oral pathological conditions.[4]

The aims of this study are to find the most common oral soft tissue diseases can affect Iraqi People more than other groups of diseases.

And special attention was given in this study to the pre malignant and malignant oral lesions, and the effects of the early diagnosis in treatment of such cases.

In concerning the age, sex and the anatomical site affected of the patients and their relation to the incidence of such oral lesions were described through this study. Also this study revealed that the inflammatory and reactive processes were more than other pathological processes represented by oral lesions which had been described and studied through this research.

Statistical hypothesis appeared a non significant differences among the causative relationships according to the distribution of lesions which were found in this study.

Patients and Methods:

Data of 3175 cases were recorded in the file of the public healthy clinic in Baladeyate city and adjacent areas in Baghdad. These cases were collected during the year 2006, and the information of these lesions were arranged in exact and careful way. 1520 cases were excluded from the total studied lesions (3175) because these 1520 cases were not considered as oral soft tissue diseases.

The remaining 1655 oral lesions were the studied cases in which this study was conducted (930 males and 725 female cases).

These lesions were diagnosed either directly in the clinic or sending them to oral biopsy services to get histopathological diagnosis, and lastly a number of cases had been already diagnosed by other specialized healthy or dental centers or professional doctors.

The numbers of oral lesions which were diagnosed directly in the clinic by specialist dentist were 345 cases.

While 672 oral lesions were sent to oral biopsy services to get histopathological diagnosis, and lastly a number of 638 cases had been already diagnosed by other specialized medical or dental centers before reaching the public health clinic.

These studied oral lesions were classified into a pathological entities according to the International classification of oral soft tissue diseases by world health organization in 1978.

These studied oral lesions were analyzed statistically to illustrate the incidence and frequency of each disease included by this study.

Also the relation ship between the incidence of the studied diseases and the lesion site, sex and age of the patient was evaluated . In addition to that the results obtained by this study were arranged in tables to illustrate different subjects of this research.

This study reflected many difficulties like the limitation of such researches in Iraq in addition to the difficulty in obtaining the data-base and Iraqi measurement for such studies were poor.

Result:

1- Description of the sample.

The total number of cases was 3175 lesions attended to the public healthy clinic in Baladyate city/ Baghdad.

The lesions included by this study were 1655 cases (table 1), while the number of lesions which was not involved by this recent study was 1520 cases because they were not related to mucosal oral soft tissue lesions, as they listed in table -2-.

Distribution of these lesions involved by this study according to the months and sexes of patients illustrated in table-3- which shows that male patients were 930 while females were 725 , this means that the incidence of males were higher than females according to this recent study .

Table -1- the oral soft tissue diseases included by the studied sample.

No	Pathological entity	Type of disease	Number of cases	%
1-	Oral soft tissue tumor like lesions.	a-pyogenic granuloma + gingival hyper- plasia b- fibroma + gingival fibromatosis	180 50	10.88 3.02
2-	Inflammatory conditions	a-Gingival and periodontal diseases: 1.chronic gingivitis . 2.Acute gingivitis . 3.Gum recession . 4.Pericoronitis . b- Periapical graunloma c-Dry socket d- Stomatitis e-Cellulitis of the oral soft tissues f-Chilitis g- Glossitis h- Candidiasis i- Sub mucous fibrosis j- Oro antral fistula and sinus tract	285 100 101 83 93 30 18 27 15 21 44 9 18 569	17.22 6.04 6.10 5.01 5.61 1.81 1.08 1.63 0.10 1.26 2.65 0.54 1.08
3-	Jaw cysts	a-Radicular cyst	177	10.69
4-	Oral soft tissue cyst	a- Epidermoid cyst	13	0.78
5-	Oral Keratotic white lesions	a- Leukoplakia	165	9.96
6 -	- Oral malignancy	a- Carcinoma of ventral and lateral borders of the tongue b- Adenocystic Carcinoma of Salivary glands	8 4	0.48 0.24
7-	Salivary gland diseases	a- Mucocoele b- Salivary gland stone	21 11	1.26 0.66
8-	Oral neoplasms	a- Squamous cell papilloma	27	1.63

		b- Lipoma	12	0.72
		c- Haemangeoma	15	0.90
9-	Oral soft tissue ulceration	a- Aphthae	72	4.35
10-	Dermatological conditions	a- Mucous memberane pemphegoid	7	0.42
11-	Non cystic non neoplasm bone lesions	a- Fibrous dysplasia of the mandible	5	0.30
		b- Oesionphylic granuloma of maxilla	6	0.36
		c- Exostosis neoplasm of maxilla	4	0.24
12-	Odontogenic neoplasm	a- Ameloblastoma + odontoma	34	2.05
	Total		1655	100

These diseases classified according to the International classification of diseases by world Health Organization (W.H.O)1978.

Table – 2- Diseases and Procedures not involved by this study.

No	Type of diseases or procedures	Number of cases	%
1-	Different types of teeth extraction	830	54.61
2-	Dental Caries, teeth fillings and endodontic treatment	475	31.25
3-	Temporo mandibular joint problems	25	1.64
4-	Open bite	27	1.11
5-	Cross bite	23	1.52
6-	Crowding and distance of teeth	51	3.36
7-	Abrasion and erosion of teeth	37	2.43
8-	Sarcoma of maxilla and mandible	3	0.19
9-	Anomalies of jaw position and size	9	0.59
10-	Prostodontic treatment	21	1.38
11-	Mescellaneous cases	19	1.25
Total		1520	100

Theses diseases or dental procedures not included with this study because they were not related to the oral soft tissue diseases which had been studied.

Table 3-1 Distribution of lesions by the months of the year 2006 and sex of the patients .

No	Month	Male %	Female %	Total
1	January	85	63	148
2	Febraury	101	62	163
3	March	89	72	161
4	April	88	60	148
5	May	93	44	137
6	Jun	83	71	154
7	Jully	75	60	135
8	August	90	50	140
9	September	51	57	108
10	October	70	66	136
11	November	45	70	115
12	December	60	50	110
Total		930	725	1655

This table illustrated that the incidence of male patients was higher than females according to the studied lesions included by this study, the ratio between male to female was 1.3:1

Table 3-2 Distribution of lesions according to the percentage of males and females among the months of the year 2006.

No	Month	Male	%	Female	%	Total
1	January	85	9.14	63	8.69	148
2	February	101	10.86	62	8.56	163
3	March	89	9.57	72	9.93	161
4	April	88	9.49	60	8.27	148
5	May	93	10.00	44	6.07	137
6	Jun	83	8.92	71	9.79	154
7	Jully	75	8.06	60	8.27	135
8	August	90	9.68	50	6.90	140
9	September	51	5.48	57	7.88	108
10	October	70	7.53	66	9.12	136
11	November	45	4.84	70	9.65	115
12	December	60	6.45	50	6.65	110
Total		930	100	725	100	1655

Table 3-3 Distribution of male and female patients according to the sex, month and comparison significance (C.S).

No	Month	Male	Female	Total	C.S P- value
1	January	85	63	148	K.S. (7) test (1.633) P= 0.010 (H.S)
2	February	101	62	163	
3	March	89	72	161	
4	April	88	60	148	
5	May	93	44	137	
6	Jun	83	71	154	
7	Jully	75	60	135	
8	August	90	50	140	
9	September	51	57	108	
10	October	70	66	136	
11	November	45	70	115	
12	December	60	50	110	
Total		930	725	1655	

K. S (7): A symp. Sig test (Kolmoyror - Smirnov) : e:Highly significance differences in the distribution of the lesions among male and female according to the different periods of time per month at P = 0.010.

2- Common oral soft tissue lesions and pathological Processes:

The most common five oral soft tissue diseases that affected Iraqi patients as they found in this study were shown in table – 4- these diseases form more than 85% of the total studied cases.

Table -4- the most common five oral soft tissue diseases affected Iraqi people according to this study.

NO	Type of disease	Number of cases	C. S
1	Gingival and periodontal diseases.	569	Chi-square test (387.814) P=0.000 H. S
2	Inflammatory oral soft tissue diseases	275	
3	Oral soft tissue tumor like lesions	230	
4	Radicular cyst	177	
5	Oral Keratotic white lesions	165	
Total		1416	

Highly significance differences (H.S) in the distribution of the most common five oral soft tissue diseases affected Iraqi people according to the studied sample.

Gingival and periodontal diseases (569 cases) formed the highest number of these lesions, followed by inflammatory oral soft tissue diseases 275 cases forming the 2nd rank.

Other groups of lesions occupied different positions according to the number of recorded cases.

The most common oral pathological processes which represented by oral lesions were shown in table- 5- .

The inflammatory and reactive lesions formed the highest part of these pathological processes represented oral soft tissue diseases.

Table- 5- The pathological processes which represented by studied oral lesions.

NO	Pathological Process	Number of Cases	C.S P- value
1-	Inflammatory and reactive lesions	1074	Chi-square test (821.787) P=0.000 H. S
2-	Neoplasm lesions	439	
3-	Developmental process	142	
4-	Metabolic Process	0	
Total		1655	

Highly significance differences in the distribution of the pathological processes which represented by the studied oral lesions.

The included 1655 lesions which represented the oral soft tissue diseases were classified according to the International classification of diseases by the world health organization (W.H.O) , 1978 into 12 pathological entities .

The major category of these pathological entities was the inflammatory conditions of the oral soft tissue diseases , followed by oral soft tissue tumor like lesions , and finally other categories occupied different ranks.

Table 6 shows 569 cases of gingival and periodontal diseases distributed according to the age group, sex and the anatomical site affected .

Table-6- Distribution of 569 cases of gingival and periodontal diseases by age, sex and site.

Age group in years	Male	Female	Total	Site affected	Number of cases	P- value
Up to 20 yrs	65	30	95	Lower gum	224	P < 0.01 H.S
21-40 yrs	53	67	120	Upper gum	125	
41-60 yrs	80	45	125	Retromollar area and maxillary tuboricity	115	
61-80 yrs	186	43	229	Undefined	105	
Total	384	185	569		569	

Highly significance differences of the distribution of 569 gingival and periodontal lesions among the age groups for male and female patients.

This table revealed that 61-80 years age group, male patients and lower gum were the most common portions affected by these diseases according to this study. There are different types of gingival and periodontal diseases as shown in table -7-.

Table -7- Shows different types of gingival and periodontal diseases distributed by sex.

No.	Type of disease	Male	%	Female	%	Total	C.S Biomial-test
1.	Chronic gingivitis	139	49	146	51	285	N.S P = 0.772
2.	Acute gingivitis	57	57	43	43	100	N.S P = 194
3.	Gum recession	62	61	39	39	101	S P = 0.029
4.	Pericoronitis	43	68	20	32	63	H.S P = 0.006
5.	Undefined cases	14	70	6	30	20	N.S P = 0.115
	Total	315	---	254	---	569	-----

The chronic and the acute gingivitis in addition to the undefined cases the significance differences was null, among the distribution of gingival and periodontal diseases according to the sex of the patients, while gum recession and pericoronitis were highly significance in relation to the distribution of these diseases according to the ages.

Chronic gingivitis formed the highest number of these lesions, females were slightly affected more than males and the old ages were involved more than others.

In addition to that 100 cases of acute gingivitis were found during this study .Males were more affected than females, the middle ages were more affected and different sites of the gum were sustable to be involved. Also cases of gum recession were found during this study affected mainly old ages and these patients who had bad oral hygien with different age groups and sexes.

Pericoronitis affected mainly up to 20 years , men affected more than women and the lower third mollar area were commenly affected .As general lower gum was the most sustable area to be affected by gingival and periodontal diseases.

Tables -8- Distribution of 180 cases of pyogenic granuloma and gingival hyperplasia by age and site.

Age group	Number of cases	%	Anatomical Site	Number of Cases	%
Up to 10 years	17	9.4	Maxillary gingiva	75	41.7
11- 20 years	73	40.6	Mandibular gingiva	72	40.0
21-30 years	52	28.9	Tongue	11	6.1
31-40 years	11	6.1	Hard palate	8	4.4
41-50 years	13	7.2	Lip	6	3.3
51-60 years	8	4.4	Buccal mucosa	5	2.8
Undefined	6	3.3	Common Commussure of mouth	3	1.7
Total	180	100		180	100
Chi- sq. test	H.S P= 0.000			H.S P= 0.000	

Highly significance differences of distribution of 180 cases of pyogenic granuloma and gingival hyperplasia among the age and anatomical site of lesion.

According to the sex of patients affected by pyogenic granuloma and gingival hyperplasia, it seemed that females were affected more than males, 83 male patients and 97 females. Also table -8- illustrated that 11-20 years age group, maxillary gingival were involved more than other age group and anatomical site.

Other types of oral soft tissue tumor like lesions were 50 cases of fibroma and gingival Fibromatosis

Table-9- Distribution of 50 cases of fibroma and gingival fibromatosis by age group and anatomical site.

Age group in years	Number of cases	%	Anatomical site	Number of cases	%
Up to 20 years	21	42.0	Buccal and alveolar mucosa	27	54.0
21 to 40 years	19	38.0	upper and lower gingiva	18	36.0
41 to 60 years	6	12.0	Lip	3	6.0
61 to 80 years	4	8.0	Tongue	2	4.0
Total	50	100		50	100
Chi- sq. test	H.S P= 0.000			H.S P= 0.000	

Highle significance differences of distribution of 50 cases of fibroma and gingival fibromatiosis among age group and anatomical site

Fibroma and gingival fibromatosis affected females more than males, 21 male patients and 29 females. Also table -9- revealed that the age group which affected mostly was up to 20 years while buccal and alveolar mucosa was the most common site affected according to this study.

Other types of inflammatory diseases were shown in table 10 which revealed that periapical granuloma was the most common disease in this group. Females slightly affected more than males.

Table -10- Distribution of different types of inflammatory diseases by sex.

NO	Type of disease	Male	%	Female	%	Total
1-	Periapical granuloma	45	54.9	48	58.5	93
2-	Candidiasis	21	25.6	23	28.1	44
3-	Submucous Fibrosis	4	4.9	5	7.1	9
4-	Oro- antral fistula and sinus tract	12	14.6	6	7.3	18
Total		82	100	82	100	164

Chi-sq. (test)= 2.299 : P= 0.513 (N.S)

Non significance differences were found in the distribution of the inflammatory diseases among sex of the patient.

This study reflected that (21 – 30) years age group was mostly involved . Also the anterior maxillary and lower posterior region were the most commonly affected .

Candidiases also affected patients with different ages , while the mucosa of the upper lip and buccal mucosa was commonly affected according to this study and females affected more than males .

During this study 177 cases of radicular cyst had been found males were more affected than females. Up to 20 years group was commonly involved , while the anterior maxillary region was the most common site affected as it was shown in table- 11-.

Table -11- 177 cases of radicular cyst distributed by age group and anatomical site affected.

Age group in years	Number of cases	%	Anatomical site	Number of cases	%
Up to 20 years	83	46.9	Anterior maxillary region	67	37.8
21 to 40 years	47	26.5	Posterior maxillary region	48	27.3
41 to 60 years	22	12.4	Posterior mandibular region	40	22.6
61 to 80 years	18	10.2	Anterior mandibular region	19	7.9
Uundefined	7	4.0	Undefined	13	7.4
Total	177	100		177	100
Chi- sq. Test	H.S P= 0.000		H.S P= 0.000		

Highly significance differences of distribution of 177 lesions of radicular cyst among age groups of patient and anatomical site affected of the lesion in this study.

This study revealed that the number of male patients was 109 while 68 female patients were affected by radicular cyst.

During this recent study 13 cases of epidermoid cyst had been found as shown in table – 12- . This study revealed that males affected more than females , and 21 – 40 years age group was mainly affected while the lower lip was the common site involved by epidermoid cyst according to this study.

Table -12- 13- cases of epidermoid cyst distributed by age and Anatomical site.

Age group in years	Number of cases	%	Anatomical site	Number of cases	%
Up to 20 years	3	23.1	Buccal mucosa	4	30.8
21 to 40 years	6	46.2	Lower lip	6	46.2
Uundefined	4	30.8	Tongue	3	23.1
Total	13	100		13	100
Chi- sq. Test	N.S P= 0.584			N.S P= 0.584	

No significance differences of distribution of 13 cases of epidermoid cyst among age and site of the lesion.

This study Pointed to that 10 patients were males while only 3 patients were females.

Oral keratotic lesions (Leukoplakia) were shown in table 13 (165 cases) .

This study revealed males affected more than females by this disease, fourth to sixth decades of life were mostly affected , buccal mucosa and tongue were the common sites affected.

Table –13– 165 cases of keratotic oral lesions distributed according to the age group and anatomical site.

Age group	Number of cases	%	Anatomical site	Number of cases	%
Up to 20 years	35	21.2	Buccal mucosa	83	50.3
21 to 40 years	22	13.3	Dorsum of the Tongue	27	16.4
41 to 60 years	63	38.2	Lateral surface of the tongue	25	15.2
61 to 80 years	34	20.6	Hard palate	14	8.5
Over 80 years	11	6.7	Undefined	16	9.7
Total	165	100		165	100
Chi- sq. Test	H.S P= 0.000			H.S P= 0.000	

Highly significance differences of distribution of 165 lesions of keratotic oral lesions among the age group and the anatomical site affected.

This study showed that 102 male patients were affected by leukoplakia and only 63 females were involved by this lesion.

Different types of oral malignancies were found during this study , form the total 8 cases, 5 cases males and 3 cases females

The most common age groups affected were (60-70) years and (70- 80) years respectively as they shown in Table- 14 - .

The main type of oral malignancy found during this study was squamous cell carcinoma, and the common sites affected were buccal mucosa, tongue and lip.

Three of these malignant cases were followed before they became malignant, it is to said in premalignant stage. Two female patients who had squamous cell carcinoma in the lateral and ventral surfaces of the tongue died during the following of the disease and during the preparation of this study. The cause of death may be related to the advanced stage of these cases.

Table –14–Eight cases of malignancy distributed by age group site and number of cases.

No	Types, Stages and sites of oral malignancy	Age group	Number of cases and sex
1-	Well differentiated squamous cell carcinoma of the Tongue: a- Lateral surface of the tongue. b- Tip of the tongue. c- Ventral surface of the tongue.	50-60 years 60-70 years 60-70 years	1 female 1 male 1 female
2-	Poor differentiated squamous cell carcinoma in the floor of the mouth.	70-80 years	2 males
3-	Squamous cell carcinoma of the lower lip.	60-70 years	1 female
4-	Moderate squamous cell carcinoma of : a- Both sides of buccal mucosa. b- Left buccal mucosa.	60-70 years 50-60 years	1 male 1 male
Total			5 males 3 females
			8 cases

In addition to these malignant cases, 4 adinocystic carcinoma of submandibulr and sublingual salivary glands were found, three male patients and one female, 50-70 years were the age groups involved by this disease.

During this recent study different types of salivary gland diseases were found . The most coomon type was 21 cases of mucocele.

The age group highly affected was (21-40) years, also male patients was affected more than females (14 males, 7 females) while the lower lip was the common site affected according to this study table –15-.

Table-15-Distribution of 21 cases of mucocele by age group, sex and site.

Age group	Male	Female	Total	Site	Number of cases	%
Up to 20 years	4	2	6	Lower lip	14	66.7
21 to 40 years	7	4	11	Tongue	3	14.3
41 to 60 years	2	1	3	Floor of the mouth	2	9.5
61 to 80 years	1	0	1	Buccal mucosa	2	9.5
Total	14	7	21		21	100.0

Chi-sq. (test)= 0.545 P= 909 (N.S)

Chi-sq. (test)= 19.571 P=0.000(H.S)

Highlt significance differences of disturbance 21 cases of mucocele among the affected site of lesions while non significance differences of these lesions among the age and sex of the patients.

While table – 16 – revealed other types of salivary gland diseases such as 7 cases of sailoadenitis and 4 cases of inflammatory conditions of salivary gland diseases.

Table-16-Inflammatory conditions of salivary gland diseases and sailoadenitis distributed by age group sex and anatomical site.

Age group in years	Male	Female	Total	Site	Number of cases	%
Up to 30 years	4	3	7	Floor of the mouth	7	63.6
30 to 60 years	1	2	3	palate	3	27.3
Undefined	1	0	1	lower lip	1	9.1
Total	6	5	11		11	100.0

Chi-sq. (test)= 1.397 P= 0.497 (N.S)

Chi-sq. (test)=2.273 P=0.132(N.S)

Non significance differences of distribution of 11 lesions of salivary gland diseases among the sex of the patient and the affected site of the lesions.

This study detected that up to 30 years age group were mostly affected and the floor of the mouth was the common site affected by salivary gland diseases in addition to that both sexes were involved.

Other types of benign oral neoplasm were detected during this study such as lipoma, squamous cell papiloma and haemangeoma.

Table -17- showed 12 cases of lipoma affected both sexes, the common age group affected was 21- 40 years while buccal mucosa was commonly involved.

Table –17-Distribution of 12 cases of lipoma by age , site and sex.

Age group in years	Male	Female	Total	Site	Number of cases	%
Up to 20 years	1	1	2	Buccal mucosa	5	41.6
21 to 40 years	2	2	4	Mandible	2	16.7

41 to 60 years	1	2	3	sulcus of the mouth	2	16.7
61 to 80 years	1	2	3	lip	3	25.0
Total	5	7	12		12	100.0

Chi-sq. (test)= 0.343 P= 0.952 (N.S)

Chi-sq. (test)=2.00 P=0.572(N.S)

The distribution of 12 cases of lipoma among ages, site and sex was non significant differences.

The distribution of 27 cases of squamous cell papilloma was illustrated in table-18- which revealed that the main age group affected was up to 20 years. Females affected more than males, also the tongue was the common site affected by this disease according to this study.

Table –18- 27-Cases of squamous cell papilloma distributed by sex, age and site.

Age group In years	Male	Female	Total	Site	Number of cases	%
Up to 20 years	7	2	9	Tongue	10	37.0
21 to 40 years	2	5	7	Buccal mucosa	6	22.2
41 to 60 years	1	3	4	floor of the mouth	7	25.9
61 to 80 years	1	6	7	lip	4	14.9
Total	11	16	27		27	100.0

Chi-sq.= 7.983 P= 0.046 (S)

Chi-sq.=2.778 P=0.427(N.S)

Non significance differences of distribution of 27 cases of squamous cell papilloma among site while it is significance among sex and age of the patients.

Haemangeoma affected mainly male patients while up to 20 years age groups and the buccal mucosa were mostly involved by this disease (table 19).

Table- 19- 15- cases of haemangeoma distributed by age, site and sex .

Age group	Male	Female	Total	Ste	Number of cases	%
Up to 20 years	7	2	9	Buccal mucosa	10	66.7
21 to 40 years	3	2	5	Tongue	3	20.0
Undefined	1	0	1	Retromolar area	2	13.3
Total	11	4	15		15	100

Chi-sq.= 0.909 P=0.635 (N.S)

Non significance distribution of 15 lesions of haemangeoma among age, site and sex.

Through this recent study, 72 cases of different types of traumatic and recurrent aphthous ulceration were detected.

Table-20-illustrated that male patients affected more than females, while 41-60 years age group and the tongue were commonly involved by these diseases according to this study.

Table -20- 72 cases of different types of traumatic and recurrent aphthous ulceration distributed by age, sex and site.

Age group years	Male	Female	Total	Site	Number of cases	%
Up to 20	5	4	9	Tongue	47	65.3
21 to 40	14	6	20	Lip	13	18.1
41 to 60	18	12	30	Buccal mucosa	10	13.9
61 to 80	7	6	13	Palate	2	2.8
Total	44	28	72		72	100.0

Chi-sq.= 1.086 P= 0.780 (N.S)

P=0.000(H.S)

Highly significance of distributions 72 lesions of traumatic and recurrent ulcers among the site affected of the lesions, while it was non significance among the age and sex of the patient.

Seven cases of mucous membrane pemphigoid illustrated in table -21-. This table revealed that buccal mucosa and tongue were the common sites affected by this disease, while the main age group affected was 21-40 years. Also this study reflected that males affected more than females by this disease.

Table-21-Seven cases of mucous membrane pemphigoid distributed by sex, age and anatomical site.

Age group (years)	Male	Female	Total	Anatomical Site	Number Of cases	%
Up to 20	1	0	1	Buccal mucosa	3	57.1
21 to 40	4	1	5	Tongue	3	28.6
41 to 60	0	1	1	Palate	1	14.3
Total	5	2	7		7	100.0

P=0.050(N.S)

Non significance difference of distribution 7 lesions of mucous membrane pemphigoid among the anatomical site effected.

Five cases of fibrous dysplasia (table 22) were found. This disease affected mainly male patients.

The posterior part of the mandible was the common site affected. Over twenty years age were mainly involved.

[Table-22- Five cases of mandibular fibrous dysplasia distributed by age, sex and site.

Age group (years)	Male	Female	Total	Affected Site	Number of cases	%
Up to 20	2	0	2	Posterior part of the mandible	7	100.0
21 to 40	4	1	5	—	—	—
Total	6	1	7		7	100.0

Fisher P-value 0.714 N.S

The distribution of 5 lesions of mandibular fibrous dysplasia was non significance among age, sex and the affected site of lesions

This recent study revealed the presence of 6 cases of Eosinophilic granuloma which affected males more than females and also over twenty years of age mostly involved, while the posterior part of maxilla was the main anatomical site affected (table 23).

Table-23-Distribution of 6 cases eosinophilic granuloma by age, sex and site.

Age group (years)	Male	Female	Total	Site	Number of cases	%
Up to 20	1	0	1	Posterior part of maxilla	3	46.2
21 to 40	2	1	3	Anterior part of maxilla	2	38.5
41 to 60	1	1	2	Hard palate	1	15.4
Total	4	2	6		6	100.0

Chi-sq.= 0.70 P= 687 (N.S)

Non significance differences of distributions of 6 cases of eosinophilic granuloma among age, sex and site.

This study appeared the presence of 4 cases of exostosis neoplasm in maxilla and mandible.

Table-24-illustrated that females affected more than males, zygoma was the most common site affected by this lesion and involved different age groups of life.

Table-24-four cases of exostosis neoplasm distributed by age, sex and anatomical site.

Age group (years)	Male	Female	Total	Anatomical Site	Number of cases	%
Up to 20	0	1	1	Zygoma	2	50.0
21 to 40	1	1	2	Posterior part of mandible	1	25.0
41 to 60	0	1	1	Anterior part of maxilla	1	25.0
Total	1	3	4		4	100.0

Fisher P-value = 0.500 (N.S)

Non significance differences of distributions of 4 cases of exostosis neoplasm among the sex of the patient and the site of the lesions.

Finally this study reflected the presence of 34 cases of ameloblastoma and odontoma (table 25).

The results in concerning these lesions appeared that male patients under the age of 20 years were mainly affected. While the Posterior part of the mandible and the anterior part of maxilla were the most common sites affected by these diseases according to this study.

Table-25- 34 cases of odontoma and ameloblastoma distributed by age group, site and sex.

Age group (years)	Male	Female	Total	Anatomical Site	Number of cases	%
Up to 20	7	4	11	Posterior part of the mandible	14	41.2
21 to 40	11	6	17	Anterior part of maxilla	11	32.4

41 to 60	3	1	4	Anterior part of mandible	6	17.6
61 to 80	1	1	2	Posterior part of maxilla	3	8.8
Total	22	12	34		34	100.0

Chi-sq= 0.381

P-value= 0.940 (N.S)

Chi-sq= 8.588

P = 0.035 (S)

The distribution of 34 lesions of odontoma and ameloblastoma by age and sex of the patient was non significant while it was significant in respect to the affected site of lesions.

Discussion:

1. The type of diagnosis:

This recent study was formed from 1655 cases diagnosed clinically and histopathologically during the year 2006, so this study is comparable with other studies in respect to the method of diagnosis by histopathological specimens and biopsy utilization as the studies conducted by Weir et al and Miller et al [5,6]. Also this recent study was in disagreement with Espinoza et al. [2] who conducted their study without biopsy utilization

2. General notes:

Our study showed that male patients were more than females included by this study, either because males can attend the public health clinic or other health centers easier than females due to some social factors or may be the incidence of these diseases was higher in males than that in females.

From these studied cases reviewed, the middle ages were the most common age group affected by mucosal oral lesions, may be due to the ability of these patients to attend the clinic more than other age groups, or may be the incidence of these diseases in such age group was higher than other age group patients.

On the other hand gum was the most common anatomical site affected by oral soft tissue diseases may be due to that the incidence of gingival and periodontal diseases was higher than other diseases, or may be the diagnosis of these lesions was easier than other mucosal lesions.

Our findings were in agreement with other studies conducted by Mukhtar ,S, Weir et al , and Hamdi, W. [3,5,7] in concerning that the majority of these oral soft tissue diseases were inflammatory or reactive in nature.

On the other hand our results detected 12 malignant cases in limited area of Baghdad to appear the increasing of malignancies in Iraqi- people in the last two decades may be due to the war operations and its chemical products.

3. Types of oral lesions:

3.1: Inflammatory Conditions:

In our recent study the inflammatory conditions of gingival and periodontal diseases formed the largest group of these soft tissue lesions so it was in agreement with Knapp [8] that he found the inflammatory gingival hyperplasia occupied the 1st position of the 17 most common oral lesions included in his study. Our recent study was in agreement with the studies of Mukhtar, S, and Hamdi, W [3,7] in concerning that middle ages were mostly involved by oral mucosal lesions but our results differed from them in concerning the incidence of the gingival and periodontal diseases was higher among other oral mucosal lesions during this study.

3.2 Periapical granuloma:

In concerning this lesions our results were similar to those results of knapp [8] , that this lesions occupied advanced rank among other lesions included in his study.

Our findings were in agreement with the investigations of Mukhtar S, Weir et. al and Hamdi W [3,5,7] In concerning that periapical granuloma occupied advanced position during the oral soft tissue lesions included by their studies . Also our results were in agreement with the results obtained by mentioned investigators in respect that females affected more than males , different age groups were affected and the lower gingiva was the common site affected by this lesion.

3.3 Pyogenic granuloma:

Our results similar to those of Mukhtar S, Weir et. al and Bachinnegar et.al [3,5,9] in concerning that female mostly affected and 2nd and 3rd decade of life were highly involved. Our results were in disagreement with results obtained by Espinoza et al and Lowyine et al [2,10] in regarding age group and the anatomical site affected by this lesions but our results agreed with them in concerning that females mostly affected.

3.4 Radicular cyst:

Our results reflected that the high incidence of the odontogenic keratocyst was the radicular cyst.

Our investigations were in agreement with results obtained by Mukhtar, S and Hamdi, W [3,7] but they were in disagreement with other authors findings , Weir et.al and Shear [5,11] differed with our findings in respect to the age and sex of the patients involved by this lesion but these findings agreed with our results in concerning that the maxillary region was the common site affected.

3.5 Epidermoid cyst:

The findings of this study agreed with results obtained by Mukhtar, S and Hamdi, W [3,7] but in our study the common site affected by epidermoid cyst was the lower lip.

3.6 Oral keratotic white lesions:

Our results were in disagreement with investigations obtained by Diaz-castellanose , Weir et.al and Axell [4,5,12] they found that the prevalence of leukoplakia was high through out the diseases included in their study. Also our study was in agreement with results obtained by Espinoza and Eversol et. al [2,13] in

concerning that buccal mucosa and the dorsum of the tongue were the common sites affected by this lesion.

3.7 Oral malignancies:

During this study 12 diagnosed malignant oral lesions were found during one year in limited area of Baghdad. This number of cases may be considered higher than normal either because chemical and waste products of the war processes or because the healthy shortage and insufficient medical management [14]

Our study in respect to malignancies was in agreement with the investigations obtained by Weir et.al , Al- Ani, S, Takeo et al and Rashid [5,15,16,17] in concerning that squamous cell carcinoma was the most common type of oral malignancies. Also our results were in agreement with results obtained by Mukhtar, S, Hamdi W, Takeo et.al and Branon and Willard [3,7,16,18] in concerning that males affected more than females, the old ages were commonly affected and the tongue was one of the commonest site affected.

3.8 Mucocoele:

The results of this recent study were in agreement with the findings obtained by Mukhtar, S, Weir et.al , Hamdi, W and Louis Mandel [3,5,7,19] that their results pointed to the lower lip was the most common site affected, males affected more than females and the ages involved by this lesion were similar to those ages obtained by our study.

Our results differed from the findings obtained by Espinoza et al [2] in concerning the ages affected by this lesion.

3.9 Benign oral neoplasm:

The most common type of this group of disease was squamous cell papilloma.

Our results agreed with the findings obtained by Abbey [20] in concerning that the tongue was the common site affected, and up to 20 years was the age groups mainly involved , but our results differed from his findings in concerning that males affected more than females according to his study.

Our study was in agreement with the studies conducted by Weir et.al and Knapp [5,8] in concerning that this lesion was one of the commonest benign oral neoplasm.

Our results differed from the findings obtained by Diaz. Castellanos [4] in concerning that males and females were affected equally by this lesions.

Our study was in disagreement with Espinoza et.al [2] in concerning that squamous cell papilloma affected mainly old ages while in our study this lesion affected mainly up to 20 years , but our study agreed with Espinoza et al in concerning that the tongue was the common site affected by this disease.

3.10 Traumatic and recurrent aphthous:

Our results were in agreement with Mukhtar, S and Hamdi, W [3,7] in concerning the age , sex and the site affected by this lesions.

Also our recent results were in disagreement with the Diaz. Castellanos study [4] in respect to the prevalence rate of this diseases. Also the results of our current study were in agreement with Solomon et.al [21] investigations.

3.11 Leucous membrane pemphigoid:

Our results were in agreement with Espinoza et.al [2] in respect to the affected site and sex of the patient but our results differed in respect to the age group which was mostly involved.

The investigations of Hamdi, W [7] agreed with our findings concerning this disease in respect to the site affected , sex and age of the patient.

3.12. Oesinophilic granuloma of maxilla:

The results of our current study were in agreement with the findings obtained by Mukhtar, S and Hamdi W [3,7] in regarding the age group which mostly affected by this disease.

Our results concerning this disease were in disagreement with the studies conducted by Cibiba et.al and Bertoloni et.al [22,23 regarding the anatomical site affected , age group and the sex of the patient mostly affected by this lesion.

3.13 Ameloblastoma and odontoma:

Our results were slightly similar to those obtained by Mukhtar, S, Weir et.al and Hamdi, W [3,5,7] in respect to the age group and the sex of the patient. But these our results were in disagreement with the findings of Beckley et.al [24] regarding these diseases .

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