

An Investigation On Oral Mucosal Lesions: Clinical, Histological and Therapeutical Approaches[¶]

ORAL MUKOZAL LEZYONLAR ÜZERİNE BİR ARAŞTIRMA: KLİNİK, HİSTOLOJİK VE TERAPÖTİK YAKLAŞIMLAR

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Summary

Purpose: Clinical differential diagnosis of oral diseases has always had a great importance for dental practitioners as well as oral and maxillofacial surgeons. Surface lesions of the oral mucosa constitute a high percentage among more than two - hundred different types of diseases affecting the oral cavity. Epidemiological studies of oral diseases help in obtaining data concerning the occurrence, dispersion and the incidence of these pathologies in different cultures and societies and enable a comparison between these various parameters. The purpose of this study is to evaluate the incidence, distribution and characteristics of the oral mucosal lesions in a sample of Turkish people and points out our therapeutical approaches for their management.

Materials and Method: This study was performed with 2238 patients who were referred to Ankara University, Faculty of Dentistry for routine dental examinations between July 1998 and February 2001.

Results: 1031 of the patients were male with a mean age of 37.9 and 1207 of the patients were female with a mean age of 37.1. Lichen planus, leukoplakia and recurrent aphtous ulcerations had the highest incidence consecutively among the study group.

Conclusion: In 2065 patients there weren't any oral mucosal lesions detected and this group constitutes 92.26% while oral lesions were observed in 7.74% of all the sample. One oral lichen planus and two leukoplakias were showed malignant transformation to squamous cell carcinoma throughout the study and the incidence was reported as 1.73%.

Key Words: Oral mucosal lesions, Epidemiology, prevalence

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Özet

Amaç: Ağız hastalıklarının klinik ayırıcı tanısı, oral ve maksillofasial cerrahlar için olduğu kadar pratisyen dişhekimleri için de büyük önem taşımaktadır. Oral kaviteyi etkileyen iki yüz farklı tip hastalık arasında oral mukozanın yüzeysel lezyonları büyük bir yüzdeyi oluşturmaktadır. Ağız hastalıklarına ait epidemiyolojik çalışmalar, bu patolojilerin farklı kültür ve toplumlardaki oluşum, dağılım ve insidansına ait bilgilerin edinilmesini sağlarken bu farklı parametreler arasında karşılaştırma yapılmasına da olanak sağlar. Bu çalışmanın amacı, bir grup Türk hastada oral mukozal lezyonların insidans, dağılım ve karakteristiklerini değerlendirmek ve tedavileri için uyguladığımız tedavi yaklaşımlarını ortaya koymaktır.

Materyal ve Metod: Bu çalışma, Temmuz 1998 ve Şubat 2001 tarihleri arasında Ankara Üniversitesi Dişhekimliği Fakültesi'ne rutin muayene için başvuran hastalarla yapılmıştır.

Bulgular: Hastaların 1031'i erkek olup bu grubun yaş ortalaması 37.9 iken hastaların 1207'si bayan olup yaş ortalamaları 37.1 olarak bulunmuştur. Liken planus, lökoplaki ve rekürrent aftöz ülserasyonlar çalışma grubunda sırasıyla en yüksek insidansa sahip oral mukoza hastalıklarıdır.

Sonuç: Hastaların 2065'inde hiçbir ağız lezyonuna rastlanmamış ve bu grup tüm hastaların %92.26'sını oluştururken tüm grubun %7.74'ünde ağız lezyonları gözlenmiştir. Çalışma süresince, bir oral liken planus ve iki lökoplaki vakasında yassı hücreli karsinoma malign transformasyon saptanmış ve bu vakaların insidansı %1.73 olarak bulunmuştur.

Anahtar Kelimeler: Oral mukozal lezyonlar, Epidemiyoloji, Prevalans

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Clinical differential diagnosis of oral diseases has always had a great importance for dental practitioners as well as oral and maxillofacial surgeons. This should be based on a sound knowledge with a

detailed history and physical examination and precedes radiographic examinations, laboratory studies, biopsy and other special tests that may be required to establish a definitive diagnosis and

treatment planning. Among more than two-hundred different types of diseases that afflict the oral cavity, surface lesions of the oral mucosa constitutes a high percentage. They consist of those lesions that involve the superficial layers of the oral mucosa and do not exceed two millimeters in thickness (1). There are different types of classifications concerning the surface lesions by various authors. Bhaskar classifies these lesions into four groups as white, vesicular, pigmented and miscellaneous surface lesions (2). Epidemiological studies of oral diseases help in obtaining data concerning the occurrence, dispersion and the incidence of these pathologies in different cultures and societies and enable a comparison between these various parameters. This epidemiological study was designed to evaluate the incidence, distribution and characteristics of the oral mucosal lesions in a sample of Turkish people and points out our therapeutic approaches for their management.

Materials and Method

This study was performed with 2238 patients who were referred to Ankara University, Faculty of Dentistry for routine dental examinations between July 1998 and February 2001. 1031 of the patients were male with a mean age of 37.9 and 1207 were female with a mean age of 37.1. Clinical examinations of the patients were performed by department of oral diagnosis and radiology and all patients were referred to department of oral and maxillofacial surgery. Alcohol consumption, smoking habits, prosthetic evaluations and subjective complaints were recorded for each patient. Histopathological analysis was performed with incisional or punch biopsy in all suspected lesions (3).

Results

In 2065 patients there weren't any oral mucosal lesion detected and this group constitutes 92.26 %, while oral lesions were observed in 7.74 % of all the sample. In overall 173 patients, 25 different types of lesions were detected in 104 male (60.11 %) and 69 female patients (39.99 %) (Graph 1, 2). Data for each patient was evaluated and the results concerning the dispersion, sex predilection and our therapeutic approach for recurrent aphthous ul-

Table 1. Recurrent aphthous ulcerations: RAU, follow-up: FU, Benzidamine HCl oral rinse: BHCl

Recurrent aphthous ulcerations diagnosed in 21 patients (10 male and 11 female)

- 1 male with RAU + Behçet' s disease + major aphthous ulceration: FU
- 1 male with RAU + Fordyce' s disease: FU
- 6 male with RAU: orally administered Trentilin 400 mg.
- 4 male with RAU: BHCl
- 1 female with RAU + Benign keratosis: FU
- 3 female with RAU: orally administered trentilin 400 mg.
- 8 female with RAU: BHCl

Table 2. Oral Lichen Planus: OLP, topical corticosteroid; TC

Oral Lichen Planus diagnosed in 50 patients (19 male and 31 female)

- 1 male with OLP + oral candidiasis: TC + BHCl + nistatine
- 9 male with OLP: TC
- 9 male with OLP: FU, 1 spontaneous remission
- 17 female with OLP: FU
- 5 female with OLP: TC + BHCl
- 4 female with OLP: TC + BHCl + nistatine
- 3 female with OLP: BHCl + nistatine
- 1 female with OLP: TC + BHCl + intralesional steroid injection
- 1 female with OLP: TC + BHCl + surgical excision with LASER

Table 3. Leukoplakia: LEU

Leukoplakia diagnosed in 43 patient (34 male and 9 female)

- 34 male with LEU: biopsy + FU
- 7 female with LEU: FU
- 2 female with LEU + epithelial dysplasia: surgical excision with LASER

Table 4. Pigmented lesions

Pigmented lesions diagnosed in 5 patient (3 male and 2 female)

- 1 male with melanine pigmentation: FU
- 2 male with oral melanotic macule: surgical excision
- 2 female with oral melanotic macule: surgical excision

Table 5. Fordyce' s disease

**Fordyce' s disease diagnosed in 8 patients
(5 male and 3 female)**

-5 male and 3 female with Fordyce' s disease: FU

Table 6. Epithelial proliferasyon

Epithelial proliferasyon diagnosed in 2 female patients

-2 female with epithelial proliferasyon: surgical excision

Table 7. Geographic tongue: GT

**Geographic tongue + Fordyce' s disease diagnosed in
1 male patient**

-1 male with GT + Fordyce' s disease: FU

Table 8. Fissural tongue: FT

FT + varicosis diagnosed in 1 male patient

-1 male with FT + varicosis: FU

FT + herpes labialis diagnosed in 1 female patient

-1 female with FT + herpes labialis: FU

FT + patomimia diagnosed in 1 male patient

-1 male with FT + patomimia: BHCl + FU

Table 9. Diffuse viral whart: DVW, patomimia

DVW diagnosed in 1 female patient

-1 female with DVW: LASER

Patomimia diagnosed in 2 male patient

-2 male with patomimia: FU

ulcerations (Table 1), oral lichen planus (Table 2), leukoplakia (Table 3), pigmented lesions (Table 4), Fordyce' s disease (Table 5), epithelial proliferasyon (Table 6), geographic tongue (Table 7), fissural tongue (Table 8), diffuse viral whart (Table 9), benign keratosis (Table 10), focal parakeratosis and epithelial hyperplasia (Table 11), squamous

cell carcinoma (Table 12), erythroplakia and stomatitis nicotina (Table 13), mucous membrane pemphigoid and erythema migrans (Table 14), leukoedema and white sponge naevus (Table 15), herpetic gingivostomatitis and psoriasis (Table 16) were obtained and given in tables.

Discussion

Epidemiology has been defined as use of the knowledge of the occurrence and distribution of disease to search for disease determinants (4). From this point of view, a large number of epidemiological studies have been reported by various

Table 10. Benign Keratosis

Benign keratosis diagnosed in 20 patients (17 male and 3 female)

- 17 male and 3 female with benign keratosis: biopsy and FU

Table 11. Focal Parakeratosis: FP, epithelial hyperplasia: EH

FP diagnosed in 1 female patient

-1 female with FP: biopsy and FU

EH diagnosed in 1 female patient

-1 female with EH: biopsy + FU

Table 12. Squamous cell carcinoma: SCC

Squamous cell carcinoma diagnosed in 3 male patients

-2 male with SCC of the tongue: surgical excision and neck dissection

-1 male with SCC of the lip: surgical excision

Table 13. Erythroplakia, Stomatitis nicotina: SN

Erythroplakia diagnosed in 3 patients (2 female and 1 male)

-2 female and 1 male with erythroplakia: FU

SN diagnosed in 3 male patients

-3 male with SN: FU

Table 14. Mucous membrane pemphigoid: MMP, erythema migrans: EM

MMP diagnosed in 1 female patient
 -1 female with MMP: systemic administration of corticosteroids

EM diagnosed in 3 male patients
 -3 male with EM: BHCl

Table 15. Leukoedema, white sponge naevus: WSN

Leukoedema diagnosed in 2 male patients
 -2 male with leukoedema: FU

WSN diagnosed in 1 male patient
 -1 male with WSN: FU

Table 16. Herpetic gingivostomatitis, psoriasis

Herpetic gingivostomatitis diagnosed in 1 female patient
 -1 female with herpetic gingivostomatitis: FU

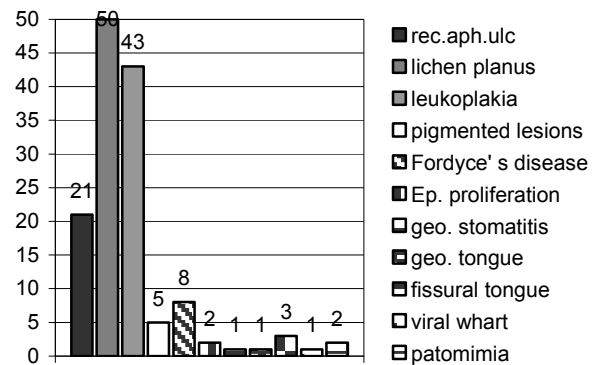
Psoriasis diagnosed in 1 female patient
 -1 female with psoriasis: FU

authors concerning oral mucosal lesions. These studies reveals that the distribution, incidence and characteristics of the oral mucosal lesions differs in various populations; Bouqot reported more than 21% of 3,783 oral mucosal and connective tissue lesions from 23,616 Americans, over 35 years of age, were keratotic lesions, representing 3.4% of the entire group (5). Kavcic and Skaleric also showed the presence of one or more mucosal lesions in 555 patients in Ljubljana, Slovenia (6). Campisi and Margiotta performed a similar investigation and in randomly selected study population of 118 male Italians, they observed the incidence of oral lesions as 81.3% (7). In another epidemiological survey, Yang et al. reported the prevalances of oral submucous fibrosis and leukoplakia as 17.6 % and 24.4 % respectively in aborigines of Taiwan (8). Epidemiological studies of oral diseases not only help in obtaining data concerning the occurrence, dispersion and the incidence of these pa-

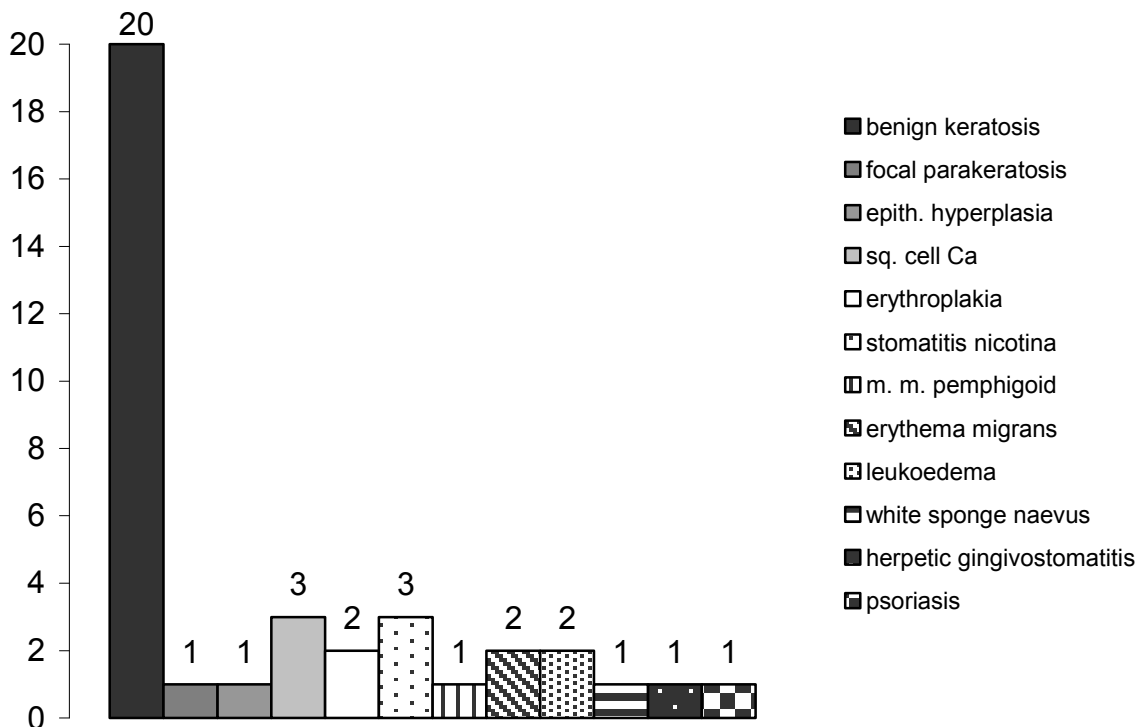
thologies in different societies, but also play a major role in the establishment of international health protocols. Today epidemiological studies are widely being conducted on oral malignant and premalignant lesions as oral cancer is still a significant and worsening health problem throughout the world. The incidence of oral cancer in the Western countries was reported between 2% and 5% of all malignancies (9). Cancer of the oral cavity is 1.1% in the Netherlands, 6.6% in France (10) and 1 - 2 of all malignancies in Japan (11) while it represents about 40% in Sri Lanka and more than 30% of all malignancies in India (10).

Alcohol, smoking and smokeless tobacco are thought as the major etiological factors for oral cancer. Concurrent use of tobacco and alcohol may increase the risk of developing oral cancer in a synergistic way. It has been reported that, oral cancer develops in alcohol and tobacco consumers 15 years earlier than in non - users (7, 12-15). Although oral cancer may develop in clinically normal mucosa, it may also develop in pre-existing lesions that are known as "pre-malignant". These lesions has the potential for malignant transformation and this indicates the necessity for an accurate diagnosis (16, 17).

The incidence and distribution of oral lesions in our study is shown in Graph 1 and Graph 2. Results of these epidemiological studies reveals variations as the etiological factors involving hereditary and nutritional factors, oral habits (alcohol



Graph 1. Dispersion of the oral mucosal lesions.



Graph 2. Dispersion of the oral mucosal lesions.

and cigarette consumption), local traumatic factors and climate differs for each population. Some of these oral mucosal lesions have the potential for malignant transformation. One oral lichen planus and two leukoplakias were showed malignant transformation to squamous cell carcinoma throughout this study and the incidence was reported as 1. 73%.

Conclusion

As a result, in the light of these data, all suspected lesions should underwent histopathological examination and supported with detailed history, and physical and radiographic examinations. Risk consideration in malignant transformation should be emphasised and the importance of early diagnosis in oral cancer should always be remembered. Oral mucosal lesions should be inspected and biopsied if necessary for any dysplastic change and the appropriate surgical or/and medical management should be administered immediately after the diagnosis and all oral mucosal lesions should be followed up periodically.

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