Oral findings and health status among elderly Iraqi patients, (aged 65 and above)

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ABSTRACT
Background: The study hypothesis was that elderly patients with many concomitant diseases and drugs would have different oral diseases, thus epidemiological information about their oral health is urgently needed in geriatric dental care for diagnosis, treatment and prevention. The aim was to obtain baseline information on the prevalence of oral problems and disease in elderly Iraqi patients.

Materials & Method: The study group consisted of 83 (43 males and 40 females) elderly patients, they were examined to evaluate the oral health status.

Results: From 83 patients who verbalized their complaints 72% complained of dry mouth, 42% had burning mouth syndrome and 48% had oral mucosal lesion. The commonest oral finding was denture stomatitis 30%.

Conclusion: This data suggests that there was considerable unmet dental need with significant oral disease in this target group.

Key words: Geriatric dentistry, saliva, BMS (J Bagh Coll Dentistry 2009; 21(1):53-56)

INTRODUCTION
Geriatric dentistry is a branch of dentistry concerned with dental care for aging populations, the frail elderly need a special care because they suffer from extensive oral disease, have medical problems that complicate the oral health, and also because their age and state of health complicate their diagnosis and treatment (1).

In addition older patients are less likely than younger patients to report symptom complaints, and often they are completely unaware of pathology that would create dramatic symptoms in younger patients, in one study of older adults, more than half of 20 potentially serious medical systems were never reported to health professional (2).

Systemic disease may directly or indirectly harm the oral cavity by altering saliva, which play an essential protective role in the mouth (3), or by the side effect of the medication (4). On the other hand, a number of significant age related changes occurred, fortunately most of these normal aging changes do not cause oral disease (5,6), instead it is the cumulative effects of both oral and systemic disease that account for the extensive pattern of oral disease among the elderly (7,8).

During the last decade several studies were done to determine the oral conditions of the older adults (9-13). Berkey (14), in a comprehensive review of oral health studies of elderly published between 1970 and 1989 described the compromised oral health status of nursing home residents.

Up to 70 percent of residents had unmet oral (decay), poor oral hygiene, periodontal disease and soft tissue lesion. Another survey conducted in 1993 on 3479 elderly found that 93 percent of edentulous had oral problem and 61 percent of the dentate had oral problem also (15).

Gift (16), reported that only 15 percent of the residents of nursing home survey were described as having excellent or very good oral health, while other study reported that approximately one third of community dwelling elderly have untreated coronal or root caries and other oral health problems including periodontal disease, attrition, un replaced missing teeth, abrasion and erosion. (17) Other reports give evidence that more than 45.9% of elderly patients had one or more oral mucosal lesion (18).

Therefore, the present study was conducted since no extensive studies have been made in Iraq to obtain information on the oral status conditions among elderly patients and to investigate the relationship between the finding in relation to age and gender.

MATERIALS AND METHODS
The sample
The study sample consisted of 83 patients of both genders with age range from (65 – 80) referred to the college of dentistry, university of Baghdad, from November 2005 to June 2006, they were examined to detect the oral health status including the complaining of dry mouth, Burning mouth syndrome and oral mucosa lesions.

The following questions have been shown to help to identify people with, or at risk of developing salivary gland hypofunction:

(1) Lecturer, department of oral diagnosis, college of dentistry, university of Baghdad.
• Do the amount of saliva in your mouth seem to be little, too much or you do not notice it?
• Do you have any difficulties swallowing?
• Does your mouth feel dry when eating a meal?
• Do you slip liquids to aid in swallowing dry food? (Mahvash – 2003)\(^{19}\).

**RESULTS**

The sample consisted of 83 patients and there were 43 (51.8%) males and 40 (48.1%) females. The mean age of the total sample 71.1 years and the mean age for males was 71.1 and for females 71.5 years. Table 1 shows the age distribution by gender of the total sample.

**Oral complain**

Hyposalivation was the main oral symptom observed in both genders 60 (72%), with a statistically significant different between males and females, burning sensation observed in 35 (42%) again on application of chi–square. There was a significant difference when males compared to females (table 2).

**Oral mucosal lesions (O.M.Ls)**

Clinical examination revealed that 48% of total elderly people have (O.M.Ls) the most common lesions observed was denture stomatitis also the prevalence of total (O.M.Ls) was higher for women than men, with a highly significant difference (table 3). Only 2 cases of candidosis which was pseudo–membranous type was not related to the use of a prosthesis.

Three case of herptic infection was detected on the upper lip, without any recent history of this infection by other patients of both groups.

Traumatic ulceration was observed in relation to the poor conditions of denture in 5 cases and 2 cases of actinic cheilites were diagnosed. Proliferative lesions were observed in 2 cases represented by fibrous hyperplasia (Confirmed by Biopsy) associated to the use of prosthesis.

**Table 1: Age and gender distribution of the sample**

<table>
<thead>
<tr>
<th>Age group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=43</td>
<td>N=40</td>
</tr>
<tr>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
<td>65 – 70</td>
<td>20 46.5</td>
</tr>
<tr>
<td>70 – 75</td>
<td>7 16.3</td>
</tr>
<tr>
<td>75 – 80</td>
<td>16 37.2</td>
</tr>
<tr>
<td>Total</td>
<td>43 100</td>
</tr>
</tbody>
</table>

**Table 2: Distribution of the sample according to the oral complain**

<table>
<thead>
<tr>
<th>S’</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=43</td>
<td>N=40</td>
</tr>
<tr>
<td></td>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
<td>Hyposalivation</td>
<td>60 (72%)</td>
<td>37 61.7</td>
</tr>
<tr>
<td>BMS</td>
<td>35 (42%)</td>
<td>11 31.4</td>
</tr>
</tbody>
</table>

\(^{*}\) Chi – square=8.086 P= 0.04, P< 005 significant.
\(^{**}\) Chi – square=6.556 P< 0.001, Highly significant

**Table 3: distribution of the sample according to the OML**

<table>
<thead>
<tr>
<th>Type of lesion</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=43</td>
<td>N=40</td>
</tr>
<tr>
<td></td>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
<td>Denture stomatitis</td>
<td>11 25.5</td>
<td>14 35.0</td>
</tr>
<tr>
<td>Herptic infection</td>
<td>1 2.3</td>
<td>2 5.00</td>
</tr>
<tr>
<td>Candidosis</td>
<td>0 0.0</td>
<td>2 5.00</td>
</tr>
<tr>
<td>Trumatic ulcer</td>
<td>3 6.9</td>
<td>2 5.00</td>
</tr>
<tr>
<td>Actnic cheilites</td>
<td>0 0.0</td>
<td>2 5.00</td>
</tr>
<tr>
<td>Leukoplakia</td>
<td>1 2.3</td>
<td>0 0.00</td>
</tr>
<tr>
<td>Denture hyperplasia</td>
<td>0 0.0</td>
<td>2 5.00</td>
</tr>
<tr>
<td>Total</td>
<td>16 37.2</td>
<td>24 60.0</td>
</tr>
</tbody>
</table>

H.S**

**DISCUSSION**

Information on the oral health of elderly population in a number of countries is available but, no data is available or published on the elderly population of Iraq.

Hyposalivation a very common symptom seems to be related to polyuria and the involvement of the parenchyma of the major salivary gland (19), this study showed that the hyposalivation is the major complain in elderly, this may occur due to the fact that older subject may have a chronic medical conditions or due to medication, such a result is within the agreement of the results obtained from other studies.\(^{20,25}\)

The result showed that 42% of the elderly patients complain of BMS, however this finding is higher than that reported by Pajukoski and Berydahl\(^{26}\) and Berydahl they showed the prevalence rate about 15% and 12.2% respectively. Our explanation for that is, those elderly people may ignore their oral health and loss their appetite.
which led to poor diet and malnutrition, another explanation was that post menopausal hormonal changes may add to the existing problem. While, studies carried by Moskona(28), showed that the most frequent complaint was pain associated with wear of denture, other study showed that dental caries is the most significant problem facing older patients(29-31).

The overall prevalence of (O.M.Ls) was 48%, this does not reflect the real prevalence of (O.M.Ls) among Iraqi elderly due to unrepresentativeness, however it could be used as a preliminary indicator to present time, this finding was slightly higher that reported by (17) they reported that 45% of elderly have (O.M.Ls).

The main lesion observed was denture stomatitis, while other studies showed that the varicosities of the tongue and Fordyce granules were mostly found (32). This variation in the results between the present study and the studies done by others could be explained on the basis of several factors like: (Environmental factors affecting the population examined, diet, habit of using dental services, and lack of objective diagnostic criteria.)

Our result explained that denture wearing may contribute in initiation of the lesions or the denture may alter the host response.

In a logistic regression, there was considerable unmet dental need with significant oral disease and poor levels of oral and denture hygiene in this target group.

REFERENCES