ORIGINAL ARTICLE

Connotation of Oro-Dental Disorders with Food & Social Customs

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ABSTRACT:
Objective: To evaluate the existing correlation between Oro-Dental disease occurrences with dietary and social habits among the local dental patients.
Methodology: This 30-day cross sectional study was conducted at Baqai Dental College Hospital Outpatient Clinic, Karachi, using pre- designed questionnaires. During the study, age, gender, types of oral disorders (identified by calibrated dental professional), and dietary preferences were looked. After informed consent and ethical approval, prospective and consecutive data of 115 subjects was collected and 15 were excluded because of inconclusive pathological oro-dental condition.
Results: Oral lesions were reported as dental pain with bleeding, dental pain with swelling, dental pain only or dental pain with both swelling and bleeding. Only 32% participants admitted to consume Naswar/ Chalia and smoking. 21 % patients admitted to consume all types of foods. 67 % were suffering from tooth decay. Naswar/ chalia eaters and smokers presented with pain alone, and pain with swelling. Surprisingly those who claimed vegetable consumption were noted to have more dental decay as well as pain.
Conclusions: This study suggested that in the absence of dominant abnormal social habits and food, suffering from Oro-Dental disorders may be related to poor quality of vegetables, water, host's characteristics or activated HPA axis in the development of pathogenic dental process.
Keywords: Oral Disorders, Naswar, Chalia, Tooth Decay, Oral Diagnosis

INTRODUCTION:

Foods, nutrients, and dietary patterns are found to have direct relation with oral health and lesions[1-2]. Moreover, a known association is present between good oral hygiene and prevention of dental caries[3-4]. The maintenance of good oral hygiene is also dependent on type of food consumption. Various dietary components may contribute to the development of enamel defects (e.g. enamel hypoplasia, fluorosis) and periodontal disease (gum disease), caries and other causes of tooth loss in adults[5,6]. Many western nations consume naturally occurring sweet products such as fruit, honey and jam; but often take lemonades, cola, other soft drinks, and various types of confectionary items as well as smoking[7,8]. This shows that consumption of food intake is influenced by the socio-cultural values of the habitants.

In addition to oral hygiene and diet, oral disorders have strong association with the host's characteristics such as type of saliva and tooth enamel, oral micro flora, bacterial plaque, and may manifest as dental crowding, plaque retention and caries[9-13]. Therefore this study was conducted to examine the existing correlation between Oro-Dental Disease occurrence, dietary, and social habits as possible underlying causes of oral problems among the local population of dental patients visiting the university dental outpatient department.

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METHODOLOGY:

This study was conducted at Baqai Dental College Hospital Outpatient Clinic after ethical approval from the institution. It was cross sectional in design, done by random sampling, using pre- designed questionnaires filled by trained medical personnel. Oro-Dental problems were diagnosed by standardized dental personnel.

During the study, age, gender, types of oral disorders (identified by calibrated dental professional), and dietary preferences were looked. The objectives were explained to all study subjects and verbal consent was obtained. Over 115 patients were evaluated. Participants without conclusive pathological oro-dental condition were excluded from the study. Consequently by using exclusion criteria, 100 patients' data was finalized. Data was analyzed by using SPSS version 20.

RESULTS:

Main oral lesions were reported as dental pain with bleeding, dental pain with swelling, dental pain only or dental pain with both swelling and bleeding. Table-1 shows results of social habits. It showed that 68% patients denied any social consumption like smoking, pan etc. Only 32% admitted to consume such products with predominance of Naswar, Chalia and smoking. Table-2 shows results of types of food consumed. It showed that 21% patients admitted to consume all types of food; whereas 79% claimed to take different patterns of food. 67% subjects were suffering from tooth decay**.** Whereas other oral diagnosis were; oral ulcers, gingivitis and impacted teeth. Naswar/Chalia eaters and smokers presented with pain alone or pain with swelling. Moreover Naswar/Chalia eaters and smokers showed tooth decay. Those who claimed to consume vegetables only were observed to have more dental decay as well as pain with swelling compared to other food consumers. Middle-age group was the main age group suffering from oral lesions.

Table: 1

Percentage assessment of social habits among Patient Population

Social Habits				
Variables	Frequency	Percent	Valid Percent	Cumulative Percent
None	68	68.0	68.0	68.0
Smoking	8	8.0	8.0	76.0
Naswar	9	9.0	9.0	85.0
Chalia	9	9.0	9.0	94.0
Pan/ Chalia	2	2.0	2.0	96.0
Smoking & Naswar	3	3.0	3.0	99.0
Naswar & Pan /Guthka	1	1.0	1.0	100.0
Total	100	100.0	100.0	

Table: 2

Percent presentation about the diversified food choices in patients

Food Choice				
Variables	Frequency	Percent	Valid Percent	Cumulative Percent
All	21	21.0	21.0	21.0
Vegetables only	32	32.0	32.0	53.0
Meat only	5	5.0	5.0	58.0
Junk Foods only	1	1.0	1.0	59.0
Vegetable with Meat	29	29.0	29.0	88.0
Vegetable with Junk Foods	6	6.0	6.0	94.0
Meat with Junk Foods	6	6.0	6.0	100.0
Total	100	100.0	100.0	

DISCUSSION:

The dietary habits, host factors, local oral pathology, and metabolic disorders may be cumulatively responsible for oral insults. The reported data unfolded some fundamental trends regarding complex interactions that may play a role in the development of oral pathology. Gender-based analysis showed that Oro-Dental suffering was equal in both sexes. Middle-age group was suffering more from tooth decay**.** The underlying reason might have been that extreme of ages (too young or old) felt it difficult to attend the dental outpatient clinics that corresponded with western data[14, 15].

In this study, 32 % patients admitted to consume Naswar, Chalia and smoking. This finding was supported by Amin et al, who reported significant association of smoking with dental disease[16].

A special survey that was conducted in Brussels showed that type and pattern of food may also influence the development and progress of oral lesions[7]. In this study, standard diet mainly consisted of vegetable and meat rather than junk food. The results of the present study revealed an important finding that study population who had definitive oral lesions of different varieties, did not have abnormal social habits and were not consuming junk food. This has suggested that other factors such as poor quality of vegetables and water could be contributory reason in pathological dental process.

Oral health is an accumulative echo of metabolic reactions which are continuously occurring inside the human body and has strong association with the host's characteristics such as type of saliva, e.g., super saturated, tooth enamel defects, characteristics of oral micro flora, presence of bacterial plaque, and these may lead to plaque retention and caries[9-13]. Fumagalli et al and Davis et al in separate work established that emotional status and systemic influences such as GIT status/ disorders also influence oral health which showed that oral health is also dependent on what happens in other parts of body[17,18].

A number of researchers have revealed consequences of abnormal metabolic reactions which effect all parts of body including structure present inside the oral cavity[19-22]. Interestingly many metabolic reactions are dependent on various factors such as hypothalamic-pituitary adrenal axis (HPA axis). There are various elements which result in activation of HPA axis, such as external reasons of stress (food stress, that is unhealthy diet, work load, emotional upsets etc.). Activated HPA axis caused internal hemodynamical stress could play a role in the pathogenesis of oro-dental problems[23-25].

CONCLUSION:

This study has suggested that in the absence of dominant abnormal social and eating habits, suffering from Oro-Dental disorders could be related to poor quality of vegetables, water, host's characteristics or activated HPA axis in the development of pathogenic dental process.

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