

Aphthous stomatitis, smoking and emotional stress

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Abstract:

A 102 (68 males and 34 females) dental student and staff questioned whether or not having experienced aphthous ulceration (Au). A questioner form which shows later in the text, was prepared. Data showed females experienced (Au) more than males and individual with blood group AB have higher liability than individuals with other blood groups.

The inner site of the lip was the commonest site affected. Majority of individuals with (Au) were able to relate their condition to variable stress and emotional factors. Individuals with smoking habit are very rarely affected by Au.

Key words:

Stomatitis, smoking, stress.

Introduction:

The oral ulceration is considered as the most common oral diseases. Among oral ulcers, aphthous ulceration (Au) considered the most common pathologic condition⁽¹⁻³⁾.

Recurrent Au is characterized by periodic appearance of painful small round or oval cratiform ulceration on the mucosa of different sites in the oral cavity. These ulcers having a pseudomembrane ranging from gray to yellow colour and encircled with a bright red inflammatory zone.

The available data on prevalence are ranging from 10-25%⁽²⁻⁵⁾. It appears to be more common in North America where specific socioeconomic and age groups reveal incidence of nearly 40%⁽⁴⁾.

Aphthous ulceration affects all age groups but mostly seen in young and middle aged people. Both sexes are almost equally affected with a slightly higher incidence in females⁽⁶⁾.

The aetiology of Au is largely unknown and many diverse factors have been blamed for their association in developing the ulcer.

This study is performed to find out the incidence of Au among dental student and staff and whether or not emotional stress, smoking and blood grouping having influence in predisposing the individuals for developing Au.

Materials and Methods:

The materials involved in the study include 102 individuals of dental student and staff of Dental College, University of Mosul.

A questioner case sheet was prepared for the purpose of obtaining data from each individual. The questions asked include age, sex, blood group, smoking habit, systemic disease, drugs, whether or not experienced Au, stress and tension factors if present. The case sheet

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performed is shown below. All the data are recorded by one of the authors.

Age:			Sex:		Blood Group:		
Smoking:	Y	N	Systemic Disease:		Y		N
Drugs:	Y	N					
If Yes, Site:							
Stress and Tension:		Y	N				
Examples of Stress Factors:							
-Examination Period.							
-Personal or Family Upset.							
-Menstrual Cycle.							
-Others.							
The questioner from which the data are collected.							

Results:

Following analysis of the data obtained, it was found that the sample involves 68 males and 34 females with age range of 21-50 years. Out of 68 males 31 experienced Au whereas 20 out of 34 females experienced Au.

Table (1) shows the prevalence of Au in relation to the sex and blood group of individuals. It is found that the relative incidence of developing Au is higher in individuals with blood group AB than in individuals with other blood grouping.

Table (1): Aphthous ulceration in relation to Blood grouping in both sexes

Blood group	Males		Females	
	Yes	NO	Yes	No
A	8	8	7	4
B	9	8	4	5
AB	5	2	3	1
O	9	19	6	4
Total	31	37	20	14

The site of occurrence of Au in the oral mucosa was tabulated and found that the inner site of the lip was the most common site and the floor of the mouth was the least. Table (2)

shows the distribution of Au in relation to mucosa sites in both sexes.

Table (2): Aphthous ulceration in relation to oral mucosa site in both sexes.

Site	Male	Female	Total
Lip	14	7	21
Buccal mucosa	6	6	12
Tongue	3	1	4
Floor of Mouth	2	-	2
More Than One Site	6	6	12
Total	31	20	51

Of the individuals studied, only 28 are smokers and of these just 2 experienced Au. Examples of stress conditions were related to individuals experienced Au shows in Tables (3).

Table (3): Aphthous ulceration in relation to the type of stress in both sexes

Type of Stress	Male	Female	Total
Exam. Period	16	8	24
Personal or Family Upset	4	2	6
Menstrual Cycle	-	3	3
Combined Factors	5	3	8
Other	6	4	10
Total	31	20	51

Out of 51 individuals with Au, 41 were able to relate Au to their psychology of different upsetting factors. Thirty patients experienced their Au during examination period and or personal or family upset. Only 3 out of 20 females experienced Au relate their condition to menstrual cycle. Ten of individuals were not able to relate their condition to any of the mentioned stress factors.

Discussion:

The multifactorial aetiology for developing Au has been mentioned previously by many authors^(3, 5, 7, 8). This study is concentrated on the effect of emotional stress, smoking and type of blood group in developing Au.

Majority of individuals who experienced Au in this study were able to relate their condition to the type of stress and tension whether personal or nearby environment. Probably during stress and emotion, some individuals may release certain chemicals which may alter the mucosal condition making it more liable for developing Au even by exposing to a mild trauma. This suggestion may explain why the inner site of the lower lip is the most common site affected since it is more liable for trauma by dentition.

It is observed in this study that individuals with blood group AB are more susceptible for developing Au, however in this limited study it is not possible to explain this observation, therefore, comprehensive studies are necessary for this context.

It is also noticed that individuals who practice smoking very rarely affected by Au. Only 2 out of 28 smokers experienced Au; probably the chemical released from tobacco and or heat generated may render the mucosa more resistant for developing (Au). It is concluded therefore that Au is more common in individuals under stress, specially in those with blood group AB. Smoking, either the chemicals of tobacco or the heat produced, play a role in retarding Au development.

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