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Original Research Article

Prevalence of Recurrent Aphthous Ulcers in Dental Student: A Questionnaire Based Study

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ABSTRACT

Introduction: The classic clinical presentation of recurrent aphthous ulcers (RAU) is recurrent, self-limiting ulcers that mainly affect non keratinized oral mucosa. They clinically present in 3 different forms, minor, major and herpetiform. Therefore the aim of the following study is to report above mentioned clinical entity in detail with its variations in clinical occurrence in dental students.
Materials and Methods: 500 students were randomly chosen from the Institute. The questionnaire regarding information about the occurrence of RAU was explained and duly filled from them.
Results: RAU was found to be more common in females with buccal mucosa being the most commonly affected site (40.45%). The main triggering factor was stress (81.81%). Majority of the ulcers healed within 2-5 days (96.36%) with no treatment (67.72%).
Conclusion: RAU is common among dental students with stress being the main etiological factor.

Key words: Recurrent aphthous ulcers, Buccal mucosa, triggering factor, stress

INTRODUCTION

Recurrent aphthous ulceration (RAU) is the one of most common inflammatory ulcerative condition of the oral mucosa.[1] The word "aphthous" has been derived from a Greek word "aphtha" which means ulceration.[2] The worldwide prevalence of oral ulcers is 4% out of which 25% are aphthous ulcers, thus becoming the most oral ulcer.[3]

RAU mainly occurs in the non-keratinized areas as lips, tongue, buccal mucosa and soft palate. They are usually painful, shallow round ulcers with an erythematous halo covered by a yellowish-gray slough.[1] Based on the clinical features, recurrent aphthous ulceration divide into three type: minor aphthae (Mikulicz's aphthae), major aphthae (Sutton's aphthae) and herpetiform aphthae.[3] At time these ulcers may be so painful that they may interfere with speech, mastication or swallowing. In brief, they may hamper a smooth daily routine and quality of life.

Therefore the aim of the present study was to report above mentioned clinical entity in detail with its variations in clinical occurrence and its various risk and triggering factors among the dental students.

Aim

To Determine the Prevalence of Recurrent Aphthous Ulcers in Dental Student: A Questionnaire Study

MATERIALS AND METHODS

A questionnaire containing a total of 12 questions in which 4 questions giving the personal details of the patient which included name, age, sex, and smoker/nonsmoker were recorded. Whereas

8 questions related to aphthous ulceration (which included whether patient has any history of RAU or no, if they had history of RAU then what are the triggering factors, whether it is related to exam/stress or not, Duration of the ulcer present, number of days it took for healing, any medication patient is taking for the same problem, during their visit whether they had any ulcer in the mouth and any related comments) were recorded. Among total of 500 dental students (studying in various phases of 1st 2nd, 3rd and final year BDS and Interns at Faculty of Dentistry) were selected in our study group. The objective of the study was explained to all of them and the questionnaire regarding information about the occurrence of RAU was distributed for further collection of information.

Inclusion Criteria

Those who were volunteers of the study, irrespective of the occurrence of the RAU

Exclusion Criteria

Those students who failed to give informed consent were done.

RESULTS

Table1. Gender Distribution in Patient with RAU

Sr.No	Age Range	Male	Female
1.	19-20	16(51.61%)	98(51.85%)
2.	21-24	15(48.38%)	91(48.14%)
Total	220	31(14.09%)	189(85.90%)

Table2. Different Sites

Sr.No	Site	Number Of Student Affected
1	Buccal Mucosa	89 (40.45%)
2	Upper Labial mucosa	16 (7.27%)
3	Lower Labial Mucosa	48 (21.81%)
4	Buccal Vestibule	5 (2.27%)
5	Lateral Border Of Tongue	37 (16.81)
6	Tip Of Tongue	25 (11.36%)

Table3. Triggering Factor

Sr.No	Trigerring Factor	NO. Of Student
1	Stress	180 (81.81%)
2	Indigestion	12 (5.45%)
3	Menstrual Cycle In Females	7 (3.18%)
4	Acidity	16 (7.27%)
5	Spicy Food Consumption	5 (2.27%)

Table4. Duration of Ulcer

Sr.No	No. Of Days	No. Of Student
1	2-5	212 (96.36%)
2	More Than 5	8 (3.63%)
3	More Than 7	0

Table5. Treatment Mode Used By Patient

Sr. No	Treatment Followed	No. Of Student
1	No Treatment	149 (67.72%)
2	Local Anaesthetic	22 (1%)
3	Topical Steroid	17 (7.72%)
4	Vit. B Complex	24 (10.90%)
5	Honey	8 (3.63%)

DISCUSSION

Recurrent aphthous ulceration or recurrent aphthous stomatitis is the most common oral mucosal disease. The disease is characterized by recurrent, painful ulcers that are small, round to ovoid, affecting non-keratinized oral mucosa such as buccal mucosa, lateral and ventral aspects of the tongue, floor of the mouth and soft palatal and oropharyngeal mucosa with a crater form based covered by a grey white pseudo membrane and surrounded by a distinct erythematous halo.[6]

The peak age of onset for RAS is between 10 and 19 years. After childhood and adolescence, it may continue throughout the entire human lifespan without geographic or age-, sex-, or race-related preference. [7] Persons with a history of recurrence of one lesion were more likely to have a history of recurrence of the other. [8]

All patients with recurrent or persistent oral ulceration should undergo complete investigation to establish a definitive diagnosis and eliminate the possibility of any underlying systemic disorder or oral malignancy. The diagnosis of RAS is mainly done on the basis of patient's history and clinical appearance of the ulcers. [9]

The majority of RAS cases heal by itself with no treatment. While, topical corticosteroid and/or topical antimicrobial therapy is most commonly used.[9] Nowadays, amlexanox is also being given as effective alternative therapy in reducing aphthous ulcer erythema, pain, and lesional size.[10]

Recurrence may be precipitated by trauma, hormonal changes in women,

physical or psychic stress, and chemical irritants. [11]

Recurrent aphthous ulceration has three different variants - minor aphthous ulcers, major aphthous ulcers and herpetiform ulcers, according to the classification described by Stanley (1972). Recurrence is the hallmark of RAU, and patients generally present with only one variant of the disease, but two forms may coexist, or a change in clinical expression may be seen with time. [4]

Food sensitive and allergies to other substances can cause ulcers in hematological normal patients with recurrent lesions.[6] Trauma has often been cited as a precipitating factor, and also bacterial microorganism (such as *Streptococcus sangius*) or viral infection are suggested as being involved in the etiology. Psychological factors, genetic factors and nutritional deficiencies may also promote aphthae. [5]

In our study it was found that aphthous ulcer is very common in dental students as 220 out of 500 gave history of RAU. It also showed a female predilection as 189 out of 220 (85.9%) were females. Also it was more common in 19 – 20 years age group. These findings were similar to a study conducted by Sujata. M. Byahatti, who conducted a similar study in a student population in Libya and concluded that 55% were females mostly ranging from 18 – 24 years age group. [2]

We also saw that buccal mucosa is the most common site (40.45%) as was seen by Mustafa Jamel Abdullah in patients attending Piramird dental specialty in Sulaimani City where buccal mucosa were the commonest sites of ulcerations (73.10%).[1]

Also the ulcers healed within 2-5 days of majority of patients (212/220 i.e. 96.36%) as was seen by Sujata M. Byahatti, in whose study 45% of ulcers healed within 2-5 days. Mainly the ulcers healed without any treatment (67.72%). [2]

The main predisposing factor was found to be stress in as high as 180 patients out of 220 (81.81%). This coincided with study conducted by LiuxiaShi et al. They conducted study among 1858 university students in Wuhu and concluded stress to be the main risk factor. [3]

CONCLUSION

RAU is a common disease mainly affecting the buccal mucosa among dental students with stress being the main etiological factor. It further requires more studies on large scale to strongly validate that stress is the main etiological factor.

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