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Research Article

**ANALYSIS OF PATTERN OF RECURRENT APHTHOUS  
ULCERS IN PATIENTS**<sup>1</sup>Dr Muhammad Farhan Raza, <sup>1</sup>Dr Humaira Akhtar, <sup>1</sup>Dr Ameena Najam<sup>1</sup>Nishter Dental College, Multan

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**Abstract:**

**Introduction:** Recurrent aphthous stomatitis (RAS) remains the most common ulcerative disease of the oral mucosa presenting as painful round shallow ulcers with well-defined erythematous margin and yellowish-gray pseudomembranous center. **Aims and objectives:** The main objective of the study is to analyze the pattern of recurrent aphthous ulcers in patients. **Material and methods:** This descriptive study was conducted in Nishter Dental College, Multan during March 2018 to November 2018. The data was collected from 100 patients who visited the OPD of the hospital. All the demographic data was collected through a questionnaire. Demographic data include sex, age, smoking habits, types of treatment, recurrence episodes, laboratory exams results from full blood count, fasting glucose, serum alkaline phosphatase, serum calcium and serum phosphate. **Results:** The data was collected from 100 patients of aphthous ulcers. The tongue was the most commonly affected anatomical region, with 27 patients (representing 27% of the sites and 39.7% of the patients) followed by the buccal mucosa with 22. **Conclusion:** It is concluded that RAS is the most common ulcerative disease affecting the oral mucosa. Its etiology is still unknown, occurs mostly in healthy individuals and has a more severe clinical presentation in immunocompromised individuals.

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## INTRODUCTION:

Recurrent aphthous stomatitis (RAS) remains the most common ulcerative disease of the oral mucosa presenting as painful round shallow ulcers with well-defined erythematous margin and yellowish-gray pseudomembranous center. RAS has a characteristic prodromal burning sensation that lasts from 2 to 48 hours before an ulcer appears [1]. It occurs in otherwise healthy individuals and is typically located on the buccal and labial mucosa and tongue. Involvement of the heavily keratinized mucosa of the palate and gingiva is less common. Diseases which also cause oral ulcers that may be mistaken for RAS include Behçet's disease, cyclic neutropenia, recurring intraoral herpes infections [2], HIV-related oral ulcers or gastrointestinal diseases such as Crohn's disease and ulcerative colitis. It is incumbent upon the clinician managing oral disease to distinguish localized RAS from ulcers caused by an underlying systemic disorder [3].

Clinically, RAS is divided into three forms: minor, major and herpetiform. The most common clinical presentation, the minor form, is responsible for 70% to 85% of all RAS, characterized by circular, ovoid or elongated lesions with a crateriform base, measuring less than 1cm in diameter, covered by a white-gray pseudo membrane and with a resolution time of 10 to 14 days [4]. The number of ulcerations is also important and the minor RAS usually vary from one to five and usually do not cause scarring.

The major form is less common than the minor, representing around 7% to 20% of the cases, have more than 1cm in diameter, are deeper and can be associated to dysphagia and can last for months, leaving scars [5]. The dysphagia is associated to the site of the lesion, being more frequent in the internal mucous membrane of the lip, tongue and soft palate.

The herpetiform form is rare and presents as groups of pinpoint ulcers in 5% to 10% of RAS, with a size of 0.1-0.2cm and in large number (5-100 ulcers at

the same time). They can coalesce forming a large and irregular lesion that can have a clinical course of 7-14 days. Despite the name and its features, the herpes simplex virus (HSV) is not identified in these lesions [6].

## Aims and objectives

The main objective of the study is to analyze the pattern of recurrent aphthous ulcers in patients.

## MATERIAL AND METHODS:

This descriptive study was conducted in Nishter Dental College, Multan during March 2018 to November 2018. The data was collected from 100 patients who visited the OPD of the hospital. All the demographic data was collected through a questionnaire.

## Data collection

Demographic data include sex, age, smoking habits, types of treatment, recurrence episodes, laboratory exams results from full blood count, fasting glucose, serum alkaline phosphatase, serum calcium and serum phosphate. And, clinical features of the lesions for the classification of RAS subtype were also recorded. The files from patients with the clinical diagnosis of RAS but who after the clinical and laboratory analysis did not have RAS, meaning lesions resulting from traumas, broken teeth, syndromes and ill adapted prosthesis, with no relapsing episodes were excluded.

## Statistical analysis

The data was collected and analysed using SPSS version 21.0. The descriptive analyses were performed based on the mean and standard deviation for quantitative variables and absolute and relative frequencies for categorical variables.

## RESULTS:

The data was collected from 100 patients of aphthous ulcers. The tongue was the most commonly affected anatomical region, with 27 patients (representing 27% of the sites and 39.7% of the patients) followed by the buccal mucosa with 22.

**Table 01:** Distribution of the cases of recurrent aphthous ulcerations according to the anatomical sites

Site	n	%
Tongue	27	27.0
Buccal mucosa	22	22.0
Upper and lower lip	20	20.0
Oral vestibule	14	14.0
Floor of the mouth	10	10.0
Soft palate	7	7.0
<b>Total</b>	<b>100</b>	<b>100.0</b>

Regarding the clinical follow-up of the patients, the majority (88%) reported improvement with the treatment prescribed at the time of the diagnosis of the condition, even with relapsing episodes.

**Figure 01:** Major anatomical site of aphthous ulcerations**DISCUSSION:**

Oral ulceration is encountered frequently in our daily practice; it causes a lot of suffering and agony for the patients throughout their life. Most ulceration are caused due to local causes such as trauma, self-elicited injuries and burns. Some may result due to aphthae or malignant conditions and few may be due to underlying systemic diseases, skin disorders or autoimmune diseases [7]. The present study is the first to describe the prevalence of RAS in the Indian population. No other similar study was found to address the prevalence of this group of oral mucosal lesions among the Pakistani population [8].

Recurrent aphthous stomatitis (RAS) is one of the most common painful oral mucosal conditions seen among patients. Recurrent aphthous stomatitis (RAS) is a common condition affecting the oral cavity. It is considered important, since it can be distressing and cause suffering and pain. In addition, it also interferes with normal activities by affecting eating and swallowing [9]. RAS has been reported as affecting 20% of the general population at any time. The peak age of RAS onset is during childhood, with a tendency to decrease in severity and frequency with age. The prevalence of aphthous varies greatly among different populations and in different age groups with a range from 5-66% among different nations [10].

Nutritional deficiencies have also been associated to the predisposition of recurrence episodes of RAS. Singh reported that deficiencies in vitamins B1, B2, B6, B12 and iron can be associated to these episodes. Based on this, they investigated the serum concentration of vitamin B12 and folic acid in 160 patients and divided them into two groups, one that received daily supplements of vitamins and another that did not and, observed that this maneuver did not

cause a reduction in the episodes of recurrence of RAS [11].

**CONCLUSION:**

It is concluded that RAS is the most common ulcerative disease affecting the oral mucosa. Its etiology is still unknown, occurs mostly in healthy individuals and has a more severe clinical presentation in immune compromised individuals.

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