

## Blood Groups of Patients with Recurrent Aphthous Stomatitis: A Preliminary Study

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### Abstract

Recurrent aphthous stomatitis is a common oral mucosal disease with unclear etiopathogenesis. It is characterized by painful and recurrent ulcerations of mucosal tissues and its treatment is generally symptomatic. In this study blood groups of patients who had recurrent aphthous stomatitis and treated in dermatology department of Mersin University between January 2006 and January 2016 were reviewed retrospectively as ABO blood groups and Rh factor.

**Keywords:** Immunity, Blood groups, Recurrent aphthous stomatitis.

### Introduction

Recurrent aphthous stomatitis (recurrent oral ulceration, RAS) is one of the most common oral mucosal disorders. It is caused by different etiological factors such as local trauma, smoking, vitamin deficiencies and viral infections [1]. In 1900, people were classified into four groups as A, B, AB and O depending on their RBC cell membrane contained A and/or B antigens [2,3]. The aim of this study is to determine relationship between recurrent aphthous ulceration and blood groups.

### Case Study

Blood groups of patients who had recurrent aphthous stomatitis and treated in dermatology department of Mersin University between January 2006 and January 2016 were reviewed retrospectively as ABO blood groups and Rh factor. The results were discussed with respect to literature.

The study group involved 100 patients of recurrent aphthous stomatitis. 52 of them were female, 48 of them were male. Among 100 patients with recurrent aphthous stomatitis, most common blood group detected was blood group A, found in 40 patients (40%). 38 of them had A positive and 2 of them had A negative type. Second most common blood group was blood group O and it found in 31 patients. 28 of them had O positive and 3 of them had O negative type. Blood group B was found in 17 patients, B positive in 16 patients and B negative in 1 patient. Blood group AB was found in 12 patients. AB positive in 10 patients and AB negative in 2 patients.

### Discussion

Recurrent aphthous stomatitis is chronic, inflammatory, ulcerative disease of the oral mucosa and its etiopathogenesis is unclear but immunity is one of the important factor in this disease [4]. Up to now many studies were performed that determine association between blood group and dermatologic diseases that have similar pathogenesis with recurrent aphthous stomatitis. In a study by Parvaiz, et al. in 98 psoriasis patients O blood group was most common blood group but there was no statistically different between control group. In the same study in 76 vitiligo patients B blood group was the most common group as statistically significant [5]. In another study by Tursen et al. relationship between ABO blood group and skin cancer were investigated, but there was no statistically significant [6]. In various study it was shown that blood group O was most common group in gastric and duodenal ulcers but in a cohort study by Gustaf, et al. there was found statistically significant between blood group A and gastric cancer [7-9]. In the literature there wasn't any study about relationship between blood groups and recurrent aphthous stomatitis. In our patients with recurrent aphthous stomatitis; A blood group was the most common group but there was no statistically significant.

### Conclusion

As a result in our study we didn't find any significant association of ABO blood groups with recurrent aphthous stomatitis. Further studies on blood group antigens in larger series are needed to determine the relationship between blood group antigens and RAS.

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