

## RESEARCH ARTICLE

### Impact of ABO blood group with teeth gap

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#### ABSTRACT

The objective of the present study was to correlate the blood grouping with teeth gap. A total of 162 subjects participate about 38 were male and 123 were female and their mean age is between 18 and 22 years. I went to laboratory for the identification of my blood group and then through experiment, I came to know that my blood group is B+. I came to know that teeth gap is maximum in B+ and minimum in AB-, O-, and A-.

**Keywords:** Periodontal diseases, Teeth gap, ABO blood group, Erythrocytes

#### INTRODUCTION

The ABO blood group gives the presence of antigens on erythrocytes having one, both, or neither of the A and B. Karl Landsteiner was first who discovered the blood group system. There are 36 different blood types, of which ABO blood type is most important. It is present in animals such as rodents and apes including chimpanzees, bonobos, and gorillas. Offspring blood is inherited from both parents. Single gene controls the blood type having three different types of alleles obtaining from classical genetics with the development of DNA sequences. Serum containing ABO antibodies which are formed naturally.<sup>[1]</sup>

Human blood can be recognized on rhesus system and it is called as rhesus system. This human blood can be recognized on rhesus system into two different groups; one is Rh positive and other is Rh negative. It is discovered in 1940 by Landsteiner and Weiner. Discovery came by immunizing the rabbits with the RBC of rhesus monkey. It is the second most important blood group system. There are 49 defined blood group antigens among which the five antigens D, C, c, E, and e are the most important. At that time, it was believed that this antigen is found in both human and rhesus monkey. However, later studies proved that Rh is not found in human blood. Rh factor is inherited protein.<sup>[2]</sup>

Human teeth are categorized into four different types that are molars, premolars, canines, and incisors. Teeth gap is also known as diastema; it is a space or gap between two teeth. It mostly occurs in incisors. Teeth gap occurs naturally or sometimes different habits cause teeth gap between the teeth-like thumb-sucking tends to pull the front teeth forward and tongue thrust habit. These can get larger with time or it may remain throughout the life. We should maintain gum health for good oral health and to protect our teeth from other oral diseases.

The objective of the present study was to correlate the teeth gap with blood grouping.

#### MATERIALS AND METHODS

A total of 162 subjects participate from Bahauddin Zakariya University, Multan, Pakistan, in this study. They all are students with their mean age of 18–22.

#### Blood grouping

We went into the laboratory. We had antigen A, B, and D. We took the needle and prick our finger. Blood came out and we put it on the clean slide in the form of three different drops. Now, put the antigen A into one drop, antigen B into the second drop and add antigen D into the third drop. Use the toothpick to mix the antigen gently. If blood with antigen A clots, then blood group will be A

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**Table 1:** Impact of ABO blood group with teeth gap

Blood group	Yes		No	
	Male	Female	Male	Female
A+	1.2%	1.8%	4.3%	9.8%
A-	0.6%	No person found	No person found	0.6%
B+	1.8%	2.4%	3.0%	25.9%
B-	No person found	No person found	1.2%	1.2%
AB+	0.6%	1.2%	1.2%	3.7%
AB-	No person found	No person found	No person found	0.6%
O+	1.8%	3.0%	8.0%	18.5%
O-	No	0.6%	No	5.5%

and if antigen B clots, then blood group will be B. On the other hand, if both antigens A and B clots, it means that the blood group is AB. If both antigens do not clot, it means that the blood group is O. The antigen D indicates that the blood group is either positive or negative. After mixing, I have observed that antigen B clot which indicates that my blood group is B positive.

### Project

A questionnaire was prepared about the teeth gap. While other subjects have different questions like height phobia, Do they like mango, foot size? How much time they use mobile phone?

### Statistical analysis

This experiment was performed by MS Excel.

### RESULTS AND DISCUSSION

In Table 1, a total of 162 subjects perform an experiment about their teeth gap, majority of B positive have teeth gap while others have minimum.

Questionnaire-based studies have been given important outcome in the current researches. I was the first who studied on this project.<sup>[3-10]</sup>

### CONCLUSION

From this study, I have concluded that the teeth gap is maximum in students with blood group +. B+ and minimum used by students with blood groups AB-, A-, and O-.

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