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Original Article

The choice between sweet and salty taste according to blood groups

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ABSTRACT

The objective of the present study was to correlate blood grouping with the choice between sweet and salty taste. Total of 176 students were participating in the present study. The subjects were students in Bahauddin Zakariya University Multan, Pakistan. A blood group system is the classification based on the presence or absence of antigens on the red blood cells (RBC's) surface. The antigens may be A, B, AB and if there is no antigen on RBC's so blood group is O. The other system is RH system that contains RH antigens or inherited proteins that are found on the surface of RBC's. These blood groups show which type of subject is more likely to eat salty food and which blood type subjects like sweet food. It shows how blood groups affect the likeness and dislikeness of subjects between sweet and salty taste. From the present study it was concluded that more people likes salty food to eat instead of sugary food.

1. INTRODUCTION

1.1 ABO blood group and RH blood group system

A blood group system is the classification based on the presence or absence of antigens on the red blood cells (RBC's) surface. There are two most important blood groups first is the ABO blood group system and the second most important is the RH blood group system.

The **ABO blood groups** were first identified by Austrian immunologist Karl Landsteiner in 1901. The ABO blood group antigens are developed before birth and remained throughout life. The children contain ABO antibodies by their mother before birth. In this system a person carries the combination of blood group antigens that are inherited from their parents. Two antigens are found on the surface of RBC's are called antigen A and antigen B. If you carry antigen A so your blood group is A and if you carry antigen B, then your blood group is B. If both antigens are present, then you have AB blood group. If you have neither A or B antigen so you have O blood group. Liquid component of blood (plasma) also contains the fluid serum having antibodies against the antigen that the person lacks and that is not present on RBC's surface. For example, if the blood contains A antigen on RBC's surface so the serum contains antibodies against B antigen. If in transfusion B blood group is injected into the person having A blood group. Then the RBC's of B blood group are destroyed by the recipient's antibodies. In the same way, type A RBC's are destroyed by the antibodies of B blood group. If your blood group is both AB so you have no antibodies to either A and B. If your blood group is O, it means your blood contains antibodies to both A and B antigens [1]. **RH blood group** system is the second most important blood group system. RH stands for the Rhesus named after the discovery of RH antigens in Rhesus monkey. RH system contains RH antigens or inherited proteins that are found on the surface of RBC's. There is distinct no. of RH antigens but most common is RHD antigen. If your blood group contains RH antigen or RH protein so you are RH positive and if you lack the RH antigen, so you are RH negative. By combining your blood group with either RH positive or negative. There are 8 possible combinations of blood groups like A+, A-, B+, B-, O+, O-, AB+, AB-. If a person of RH negative blood group (lacks RH antigen) receives a blood from RH positive person in transfusion. Then the immune system responds to the foreign RH antigen and produced anti-RH antibodies. If again the RH positive blood is given, then the anti RH antibodies destroy the foreign red blood cells. This destruction of RBC's cause serious illness and sometimes death. The main difference between RH and ABO blood group system is that RH negative

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people usually not produced antibodies against the RHD antigen unless they exposure to the antigen whereas in ABO blood group antibodies are produced in plasma when antigen is absent from red blood cells [2].

1.2 Sweet and Salty lovers

Some people prefer to eat sweet and some people love to eat salty or savory food. Savory food involves bitter, sour and salty food. Our taste buds are responsible for this preference. These taste buds respond to four different flavors it includes sweet, salty, sour and bitter. But most of the people seem to crave more sugars over chips and other salty meals. Many people have sweet tooth that's why they crave sugars like eating chocolates and cakes etc. The others have salty tooth then they prefer to eat salty food to satisfy their taste buds. There is a science behind our choice everyone contains a specific combination of genes that determines our taste buds to receive specific type of flavors. The sweet tooth contains DNA on our taste bud receptors that are present on tongue. Some premature babies also want salty food because they have low sodium levels. Stress also involves eating salty food. When you are in stress your sodium level become low and you lead to want more salty food. Some people run through diabetes, when diabetes appear then people cravings more sweets it means your sugar level may high or low. The objective of the present study was to corelate blood grouping with the choice between sweet and savory taste.

2. MATERIALS AND METHOD

Total of 176 students were participating in the present study. The subject were students in Bahauddin Zakariya University Multan, Pakistan.

2.1 Blood grouping

In order to check the blood group of any person, first take out a blood sample by pricking its fingertip with the needle. Make sure that you sterilize your fingertip by alcohol wipe. Now squeeze your fingertip to get big drops of blood. Blood group is checked according to their opposing antibodies in the test tubes and Rh-anti serum. Blood group is determined on base of cells clotting or cells clumping against antibodies of test tubes and tells the blood type of that sample. Now put the blood sample in a test tube and checked it against antibodies. Now add antibodies in blood sample wait for the moment for precipitation formation. If blood cells clot it means that sample reacts with one of the antibodies. If blood cells not clot to any antibodies A and antibodies B it means there is no reaction between antibodies and blood sample so, the blood group is O and if blood clots on both antibodies A and antibodies B it shows blood group is AB. If blood cells clot against antibodies A then its blood group is B. If blood sample clots against antibodies B it shows that blood group is A. after this the positivity and negativity of the blood sample also checked against Rh- antiserum. To checked this, mixed anti-Rh serum on blood sample. If blood clots on Rh antibodies it means blood group is positive and if precipitates do not occur, it means blood sample is negative such as A+ or A- blood group

2.2 PROJECT DESIGNING

I collected all the information from subjects. First, I took consent from the subjects that whether I can take their blood samples. When they gave me permission for their testing blood groups, then I compared their blood groups to my study that how much people like sweet and how much people like savory food.

2.3 STATISTICAL ANALYSIS

Statistical analysis was performed by using Microsoft Excel.

3. RESULTS AND DISCUSSION

The choice between sweet and salty taste according to blood groups is shown by figure 1. This shows that how much subjects out of total 176 like sweet food more and how much like salty food and how much like both tastes. In case of A+ subjects, 65.62% like salty food, 31.25% like sweet and 3.12% like both sweet and salty food. In case of, A- 50% likes sweet and the other 50% likes salty food and 0% likes both. B+ blood groups 79% likes salty food, 16.1% likes sweet food and 4.8% likes both sweet and salty food. In B-, 60% likes salty food and 40% likes sweet and 0% likes both. Now in case of AB+ blood 75% likes salty, 25% involved to eat sweet food and 0% for both. AB- blood group includes 50% likes salty and 50% likes sugary food. Now moves to O+ blood group, 73% likes salty food and 26.9% likes sweet food and 0% for both. Now the last group is O-, it has 60% likes salty and 30% likes sugary food and 10% likes both.

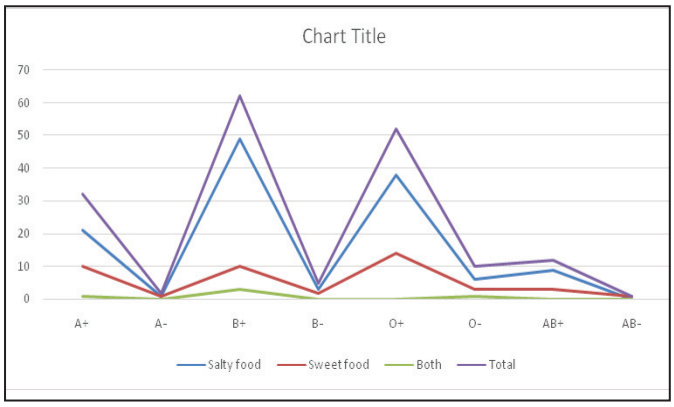

Fig. 1. Choice between sweet and salty taste according to blood groups

Questionnaire based study have given an important advancement in recent researches [3-10]. There are also some researches that show how blood group affects your diet and also why people crave more salts. So, more people prefer to eat salty food.

4. CONCLUSION

It was concluded from the present study that B+ blood group subjects more like to eat salty food out of 8 blood groups; O+ blood groups prefer more to eat sweet foods out of other blood groups. Out of total 176 subjects, 127 subjects like to eat salty food more, 44 subjects prefer to eat savory food and only 5 subjects who like to eat both salty and sugary food.

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REFERENCES

[1] Qadir MI, Malik SA. Comparison of alterations in red blood cell count and alterations in hemoglobin concentration in patients suffering from rectal carcinoma undergoing 5-fluorouracil and folic acid therapy. Pharmacologyonline 2010; Nl 3: 240-243.

[2] Qadir MI, Noor A. Anemias. Rare & Uncommon Diseases. Cambridge Scholars Publishing. Newcastle, England. 2018; pp 11.

[3] Qadir MI, Javid A. Awareness about Crohn's Disease in biotechnology students. Glo Adv Res J Med Medical Sci. 2018; 7(3): 062-064.

[4] Qadir MI, Saleem A. Awareness about ischemic heart disease in university biotechnology students. Glo Adv Res J Med Medical Sci. 2018; 7(3): 059-061.

[5] Qadir MI, Ishfaq S. Awareness about hypertension in biology students. Int J Mod Pharma Res. 2018; 7(2): 08-10.

[6] Qadir MI, Mehwish. Awareness about psoriasis disease. Int J Mod Pharma Res. 2018; 7(2): 17-18.

[7] Qadir MI, Shahzad R. Awareness about obesity in postgraduate students of biotechnology. Int J Mod Pharma Res. 2018; 7(2): 14-16.

[8] Qadir MI, Rizvi M. Awareness about thalassemia in post graduate students. MOJ Lymphology & Phlebology 2018; 2(1): 14-16.

[9] Qadir MI, Ghalia BA. Awareness survey about colorectal cancer in students of M. Phil Biotechnology at Bahauddin Zakariya University, Multan, Pakistan. Nov Appro in Can Study 2018; 1(3): NACS.000514.2018.

[10] Qadir MI, Saba G. Awareness about intestinal cancer in university student. Nov Appro in Can Study 2018; 1(3): NACS.000515.2018.