

**Distribution of Rh Blood Group among Students of Nishter Medical College****Aamna Tariq**

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Email address: aamnatariqaimc1@gmail.com**ABSTRACT****Aims and Objectives:****Setting:** This study was conducted on first year medical students of Nishter medical college to**Duration:** This study was started in January 2019 and completed in May 2019 comprising on total duration of 5 months.**Study design:** This is a cross sectional study of observational type.**Materials and Methods:** Study was conducted on first year medical students. 100 students were selected via randomized controlled trials. Their blood groups were tested for being RH positive or negative. Test was conducted in the laboratory of college. Irrespective of gender students were included in the study. Permission was taken from college authority and consent was taken from all students included in the study. Data collected was analyzed on SPSS version 2012.**Results:** 67(55.8%) cases were male students and 53(44.2%) were female students. There were 55% cases having Rh positive group and 45% were having Rh-negative antigen. It was seen that mostly female students were Rh negative antigen while mostly male students were Rh positive antigen.**Conclusion:** Rh positive antigen blood group was found more common among male students while Rh negative blood group was found among female students and overall Rh positive blood group was common in study group**Key words:** Rh antigen, Nishter Medical college, blood grouping**INTRODUCTION**

Blood groups are determined by specific antigens present on the surface of red blood cells. There are various blood group systems but commonly used is ABO and RH blood group systems. In RH system any blood group may be RH positive or negative on the basis of presence or absence of antigen on RBCs. Blood grouping is very important in blood donation to any person. If blood group is matched

on by these two systems then blood group is safe for recipient. If blood group is not matched then blood transfusion may lead to lethal transfusion side effects and complications such as chest pain, renal and liver failure, intravascular coagulation, ARDS and anaphylactic shock leading to death. In this condition patient needs ICU care and rapid exchange of blood of patient with properly matched blood group. Oxygen inhalation, steroid therapy and fluids are given. Initial signs and symptoms of transfusion complications due to ismatched blood group may be tachycardia, tachypnea, dyspnea, chest pain, oligourea dizziness, skin rash and followed by acute respiratory distress syndrome.

MATERIALS AND METHODS

Study was conducted on first year medical students. 100 students were selected via randomized controlled trials. Their blood groups were tested for being RH positive or negative. Test was conducted in the laboratory of college. Irrespective of gender students were included in the study. Permission was taken from college authority and consent was taken from all students included in the study. Data collected was analyzed on SPSS version 2012. Descriptive statistics were used to compute percentages and averages. Tables and charts used to present results and expressed as percentages/proportions, means and standard deviation. All collected data was documented

RESULT

Total 120 cases were selected from first year MBBS class via randomized controlled trials technique. Students were selected irrespective of age and gender. 67(55.8%) cases were male students and 53(44.2%) were female students. There were 66(55%) cases having Rh positive group and 54(45%) were having Rh-negative antigen. It was seen that mostly female students were Rh negative antigen while mostly male students were Rh positive antigen.

Table 1: RH blood group distribution according to gender

RH group	Females		Males		Total
	Frequency	Percentage	Frequency	Percentage	
Positive	23	19.2%	43	35.8%	66 (55%)
Negative	30	25%	24	20%	54(45%)
Total	53	44.2%	67	55.8%	120 (100%)



DISCUSSION

Initially it was regarded that O blood group is a universal donor and so can be given to anybody with any other blood group except group O. It has been determined that some people with blood group O have high titre of hemolysin,¹³ an anti-A and anti-B antibodies in their plasma and so can cause hemolytic transfusion reaction and death when such blood group O is transfused to anybody with any other blood type apart from group O. Since majority of the study population have blood group O, there may be need for routine screening for hemolysin among blood group O individuals. Blood groups are determined by specific antigens present on the surface of red blood cells. There are various blood group systems but commonly used is ABO and RH blood group systems. In RH system any blood group may be RH positive or negative on the basis of presence or absence of antigen on RBCs. Blood grouping is very important in blood donation to any person. If blood group is matched on by these two systems then blood group is safe for recipient. If blood group is not matched then blood transfusion may lead to lethal transfusion

side effects and complications such as chest pain, renal and liver failure, intravascular coagulation, ARDS and anaphylactic shock leading to death. In this condition patient needs ICU care and rapid exchange of blood of patient with properly matched blood group. Oxygen inhalation, steroid therapy and fluids are given. In the study population, most of the students were Rhesus positive while only a minority was rhesus negative. In previous studies similar findings have been reported.¹⁶ These findings were similar to the low incidence of rhesus negativity in Nigeria and beyond.^{5,16}

CONCLUSION

Rh positive antigen blood group was found more common among male students while Rh negative blood group was found among female students and overall Rh positive blood group was common in study group. Rhesus negative blood group was in low frequency. For easy accessibility to rhesus negative blood for transfusion in cases of emergency, Institution of blood donor registry plays important role. It is also very important to prevent hemolytic disease in the fetus and newborn.

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