



ASSOCIATION OF CATARACT IN ABO BLOOD GROUP SYSTEM

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ABSTRACT

Background And Objective: To investigate whether cataract has any relationship with the ABO blood groups. **Material And Method:** Cataract patients were 74 and controls were 5750 who are randomly selected were examined by hemagglutination rapid slide technique and the results were complied, compared with each other and a conclusion was drawn **Results:** There was no significant difference was seen between the two groups. **Conclusion:** It was found that there was no significant difference observed between the different blood groups among the patients and the controls group.

KEYWORDS : Blood Group, Cataract.

INTRODUCTION

Karl Landsteiner was the first person to discover the ABO blood group system in 1901.¹ The ABO antigens are considered as the major and clinically significant blood group system.¹ Apart from the importance of ABO antigens in blood transfusion, the ABO blood group system has been associated with several diseases. The Aim of the study is herein an attempt has been made to determine the incidence of cataract in different ABO blood groups and thereby genetic involvement. In this study 74 cataract patients were investigated for their blood group by haemagglutination rapid slide technique and the frequency of which in different ABO blood groups was found out and compared with those of 5750 normal controls.

MATERIAL AND METHODS

A cross-sectional study was conducted in Ophthalmology outpatient department of Rukmani Birla Hospital and MGMC Hospital Jaipur. Selection of cases was done randomly selecting cataract patients from the patients attending Ophthalmology and the controls were selected randomly from the general population of Jaipur, after their complete eye check up served as control. The blood group of these individuals were determined by haemagglutination rapid slide technique using monoclonal Anti-A and Anti-B having a titer of 256. In total 74 cataract and 5750 normal control individuals were investigated. The diagnosis of age related cataract was based on history taking, clinical examination and fundoscopic examination. Only proven cataract cases had been taken for the study and the cases with any other eye related complaint had been excluded from the study. After compiling the results the observed difference in cataract patient was compared with the controls were statistically analysed to find out the level of significance using SPSS software $p < 0.05$ is considered as significant.

RESULT

Incidence of ABO Blood Group

BLOOD GROUPS	PATIENT	CONTROL
A	7 (10%)	633 (11%)
B	31 (41%)	2242 (39%)
AB	3 (4%)	230 (4%)
O	33 (45%)	2645 (46%)
TOTAL	74	5750

DISCUSSION

From table 1 it is quite evident that there is not much difference seen in cataract patients in any of the blood groups and after statistically comparing we found the results were statistically not significant ,i.e.; $p > 0.05$. So it appears that inheritance of ABO genes are not related to occurrence of cataract. In other

words, cataract is not genetically inherited. It may be the ageing process only.

CONCLUSION

There is non – significant rise in number of cataract patients in any ABO blood groups. So it seems that cataract is only because of aging process.

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