Oral presentations
Theme 2: Diagnosis and Treatment OP17

Distribution of ABO and Rh D blood groups among diabetic and non-diabetic patients attending medical clinics at Teaching Hospital Jaffna

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Background and objective: Diabetes mellitus is a major health concern worldwide. ABO and Rh D blood type is known to be associated with certain diseases. The genetic and immunological basis of diabetes mellitus suggests that the condition could be linked to blood type. This study aimed to determine the distribution of ABO and Rh D blood groups among diabetic and nondiabetic patients attending medical clinics at Teaching Hospital Jaffna.

Methods: A hospital-based descriptive cross-sectional study was conducted among 335 diabetic and 285 nondiabetic patients between February and March 2020. ABO and Rh D grouping was done by the tube agglutination method. Data were analysed by Statistical Package of Social Science and $p<0.05$ was considered as statistically significant.

Results: Rh D negative blood group was significantly less common among diabetics (9.3%) than nondiabetic population (16.2%) ($p<0.05$). O Rh D negative blood group was significantly less common in diabetics (2.5%) than nondiabetics (8.9%) ($p<0.001$). Blood group A was more common in diabetics (24.1%) than non-diabetics (21.4%). Blood group B was more common in diabetics (28.5%) than nondiabetics (23.6%), and blood group O was more common in nondiabetics (45.8%) than diabetics (38.1%). However, these findings were not statistically significant ($p>0.05$).

Conclusion: The present study shows that Rh D negative and O Rh D negative are less frequent in the diabetic population. However, ABO blood types do not show a significantly different distribution among the two populations. These findings may contribute towards research on the genetic relationship between the Rh D gene and the diabetogenic gene.

Keywords: ABO Blood Group, Rh D Blood Group, Diabetes Mellitus