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**Original article**

**Association of ABO and Rh blood groups with blood pressure: A cross sectional study in South Indian population**

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**Abstract:**

Introduction: The importance of human blood groups in blood transfusion is a well-known fact.In recent times, much interest is focused in understandingtheir role in certain disease processes.As blood groups are genetically determined, they may play a role in the development of certain genetic disorders. Hypertension is a well-known genetic disorder with a high degree of inheritance. Though a handful of studies have been conducted in various populations to recognise the blood group-hypertension relationship; the reports were entirely different in each case. Therefore, aim of the present study was to identify the association of ABO and Rh blood group with blood pressure in south Indian population.

Materials and methods: It was a cross-sectional, population-based study comprised of 228 subjects. Two variables were noted from each individual: Arterial blood pressure and blood group. Chi-square test was applied to assess the relation between these two variables.

Results: The mean systolic blood pressure was significantly high in AB blood group when compared to other blood groups (p value 0.02). There was no difference in diastolic blood pressure of A, B, AB and O groups. Similarly, there was no association of blood pressure with Rhesus (Rh) blood group.

Conclusion: Findings of this study suggest that AB blood group individuals have more susceptibility for hypertension indicating a potential genetic association between ABO blood group and hypertension. Further studies are essential in larger population to more clearly elucidate these results.

Keywords: Blood group, Blood pressure, Hypertension