Study of ABO and Rh(D) Blood Groups in Sunni Muslims of Jaunpur District, Uttar Pradesh, India

Pradeep Kumar¹, Saima² and Vandana Rai²

¹Department of Biotechnology, ²Department of Biochemistry, V B S Purvanchal University, Jaunpur 222001, Uttar Pradesh, India

KEYWORDS Blood Groups. Genetic Variation. Sunni Muslim. North India

ABSTRACT The present study reports the distribution of ABO blood groups and Rh (D) factor among the Sunni Muslim population of Jaunpur (Uttar Pradesh), north India. The percentage of A (30.5%), B (30%), O (28%) and AB (11.5%) groups and the frequencies of O, A and B alleles were found to be (0.5270, 0.2381, and 0.235, respectively) were similar to previously reported data on ABO system from Jaunpur. The percentage of Rh-positive and Rh-negative individuals is 97% and 3%, respectively.

INTRODUCTION

The ABO blood groups and Rhesus (Rh) D blood group antigens are the most frequently studied genetic markers in a large number of populations worldwide (Mourant et al. 1976). Several studies have been carried out on the distribution of blood groups among several ethnic and caste group populations in India (Bhasin et al. 1992, 1994). The studies on the genetic markers among Muslim population is very few, therefore an attempt has been made to study blood groups ABO and Rh (D) distribution among Sunni Muslim population of Jaunpur district.

MATERIAL AND METHODS

Blood samples from 200 unrelated individuals of both sexes were drawn from the Sunni (Muslim) settlements of Jaunpur district. Blood samples were taken from finger pricks, and the usual open slide method of testing for ABO blood groups and Rh (D) factor was followed (Bhasin and Chahal 1996). The ABO allele frequencies were calculated according to Mourant et al. (1976).

RESULTS AND DISCUSSION

The frequency distributions phenotypes and the allele frequencies of ABO and Rh (D) blood groups are presented in tables 1 and 2, respectively. It has been observed that in the Sunni Muslim population of Jaunpur (Uttar Pradesh), north India, the percentage of A (30.5%), B (30%), O (28%) and AB (11.5%) groups and the frequencies of O, A and B alleles were found to be (0.5270, 0.2381, and 0.235 respectively) were similar to previously reported data on ABO system from Jaunpur. The percentage of Rh-positive and Rh-negative individuals is 97% and 3%, respectively.

Corresponding author:
Pradeep Kumar, Lecturer
Department of Biotechnology, VBS Purvanchal University, Jaunpur 222 001, Uttar Pradesh, India
Telephone: 05452252538(O), 09451713485(M)
E-mail: pradipk14@yahoo.co.in pradeepk14@rediffmail.com
and $d$ alleles are 0.827 and 0.173, respectively (Table 2).

ACKNOWLEDGEMENTS

The authors would like to thank Dr. V.S. Upadhyay and his pathologist for their generous help in ABO and Rh(D) blood grouping and we are also very much grateful to the Sunni community of Jaunpur district because without their support the present study was not possible.

REFERENCES