

ABO and Rh (D) Blood Groups Polymorphism in Four Tehsils of Bajaur Agency (Federally Administered Tribal Areas), PakistanAtta ur Rehman¹, Zain ul Wahab², Muhammad Nasir Khan Khattak¹ and Sajid Malik³

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KEYWORDS Immunogenic Markers. ABO and Rh. Blood Groups. Allele Frequencies. Bajaur Population

ABSTRACT The tribal populations at the Pakistan-Afghanistan border are of great scientific interest because of their transitional status which is due to the volatile law-and-order situation in this region from the last few decades. The present study aimed at elucidating the ABO and Rh blood groups polymorphisms in the Bajaur population, which is a war affected territory in the north-western Pakistan. Blood groups data were obtained from 1,200 unrelated male subjects belonging to four tehsils of Bajaur Agency. Phenotyping was performed through forward typing. At the ABO locus, allele [O] was observed to be highly frequent (0.544), followed by alleles [B] and [A] with the frequencies of 0.231 and 0.225, respectively. At the Rh locus, allele frequencies for [D] and [d] were found to be 0.707 and 0.293, respectively. The total sample was in conformity with the Hardy-Weinberg expectations. A comparison of allelic frequencies at both loci with neighboring populations through Nei's genetic distance D revealed that Bajaur sample had close affinities with Dir-Lower and Swat populations but least with Swabi and Peshawar populations. This study would be useful in the appreciating the genetic diversity of north-western populations of Pakistan.