

Dedication

To my beloved Family,
parents and Friends, who
give me warmth and all their
love.

To my teachers who give
me knowledge and science.

To every one who assisted
me to complete this project
and to all people who dream
of nice future and seek for a
good life.

Safa

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ABSTRACT

This was descriptive, prospective and analytical study conducted in Khartoum State in the period of March to June 2007 to determine ABO and Rh phenotype frequencies among Alnuba Sudanese population, this study was included hundred (100) unrelated volunteers from (Aluoba) tribe, in different ages and both sexes (Males and Females), the consent of the selected individuals to the study was taken after being informed with all detailed objectives of the study and its health emphasis in the future.

The questionnaire was specifically designed to obtain in formations about name, sex, tribe, age, living place, origin place, telephone and present of pathological condition.

The laboratory method used to demonstrate ABO Ags was manual slide method by use convention ABO anti sera ,where manual tube method was used for Rh Ages in addition to automated techniques (Gel Immune Diffusion).

The percentage of ABO Blood group among Alnuba Tribe were found to be 60 % of them were group O , 29 % group A, 10 % group B, and 1

% group AB . The result showed high frequency of group O and Low frequency in group AB, the percentage of (positive – negative) Rh Fisher classification antigens demonstrated as 92 % of the study groups were positive D antigen, while 8% of them were negative. C antigen positive in 6% and 94 % of them were negative. 97% of Alnuba tribe was positive c antigen while 3 % of them were negative. E antigen positive was found in 9 % and negative was in 91% of them. e antigen positive in 92 %, and 8 % of them were negative ,the most common ABO blood group was group O while AB was the less common ,but the most common Rhesus phenotype was c,D, e in contrast C,E found with low frequencies among the study group.

The collected data analyzed using SPSS computerized programmed to calculate the percentage and frequencies of these Ags.

The results of ABO and Rh (D) Ags in this study showed similarity With others studies included distribution of blood groups among city Mashhad in North East of Iran and frequencies among Yoxuba and Hausa in Nigeria.

النتائج

هذه دراسة وصفية تحليلية أجريت في ولاية الخرطوم في الفترة من مارس الى يونيو 2007 لتحديد الزمر الوظيفية و النمط الظاهري لفصائل الدم (ABO) وإيجابية وسلبية الزمر الوظيفية لانتجينات العامل الريصي فى قبيلة (النوبة) السودانية، وشملت هذه الدراسة 100 عينة من المتطوعين من قبيلة (النوبة) من مختلف الأعمار ومن كلا الجنسين (الذكور والإناث) ، بموافقة أفراد الدراسة المختارين وذلك بعد اطلاعهم علي جميع أهداف الدراسة التفصيلية و بعد التأكد من عدم تأثيرها علي صحتهم المستقبليّة. .وتم تحديد نسبة الزمر الوظيفية لانتجينات (ABO) في قبيلة النوبة حيث وجد أن 29 % من الفئة (A) ، 10 % من الفئة (B) ، و 1 % من الفئة (AB) و 60 % من الفئة (O) . ولا قد أظهرت هذه النتائج أعلي نسبة للفئة (O) وأدني نسبة للفئة (AB) ، وتم تصنيف نسب (الايجابية - السلبية) الزمر الوظيفية لانتجينات العامل الريصي كالآتي 92 % إيجابية لانتجين (D و 8 % سلبية . 6 % إيجابية لانتجين (C) و 94 % سلبية. 97 % إيجابية لانتجين (3) c % سلبية. 9 % إيجابية لانتجين (E) و 91 % سلبية. 92 % إيجابية لانتجين (e) و 8 % سلبية ، وأكثر أنتجينات العامل الريصي شيوعا وفقا لهذه الدراسة هي c,D,e وأقلها شيوعا C,E وسط الخاضعين للدراسة .

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BBREVIATIONS

Rh: Rhesus Blood Group System.

RBCs: Red Blood Cells.

HDN : Hemolytic Disease of Newborn.

HTR: Hemolytic Transfusion Reaction.

2ME : 2-mercaptoethanol

DTT: Dithiothreitol.

ISBT: International Society of Blood Transfusion.

NO: Numbers

SPSS: Statistical Package for Social Science.

Ag: Antigen

Ab: Antibody

UK: United kingdom

CFUE :Colony forming unit Erythrocyte

CD : Cluster Differentiation

cDNA : Clone Complementary DNA

BFUE: Burst-forming unit, Erythrocyte

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