

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 information 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 conventional ABO anti sera ,where manual tube method was used for Rh Ags 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.

مقدمة

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 في 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 على جميع أهداف الدراسة التفصيلية وبعد التأكد من عدم تأثيرها على صحتهم المست قبلية. . 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). وقد أظهرت هذه النتائج أعلى نسبة للفئة (O) وأدنى نسبة للفئة (AB)، وتم تصنيف نسب (الإيجابية - السلبية) للزمر الوظيفية لانتجينات العامل الريصي كالتالي 92٪ إيجابية لانتجين (D) و 8٪ سلبية . 6٪ إيجابية لانتجين (C) و 94٪ سلبية. 97٪ إيجابية لانتجين (e) و 3٪ سلبية. 9٪ إيجابية لانتجين (E) و 91٪ سلبية. 92٪ إيجابية لانتجين (e) و 8٪ سلبية ، وأكثر انتجينات العامل الريصي شيوعا وفقا لهذه الدراسة هي e, D, C, E وأقلها شيوعا . وسط الخاضعين للدراسة .

CONTENTS

Dedication.....	I
Acknowledgement.....	II
Abstract (English)	III
Abstract (Arabic).....	V
Contents	VI
Abbreviations	IX
List of Tables	X
List of Figures.....	XI
Chapter -1	

INTRODUCTION AND LITERATURE REVIEW

1. Introduction and literature review.....	1
1.1Introduction.....	1
1.2 literature review.....	4
1.2.1.History of Blood Groups Discovery.....	4
1.2.1.1. Blood group antigen	4
1.2.1.2. 2 Blood group serology	5
1.2.2. ABO blood group system.....	8
1.2.2.1. Disease association with ABO blood group	9
1.2.2.2. The alleles	10
1.2.2.3. Genetics of the ABO Blood Group systems	10
1.2.2.4. H antigen on red cell	13
1.2.2.5. A ₁ and A ₂ Subgroups.	15
1.2.2.6. Secretors and non secretors	16
1.2.2.7. Bombay phenotype	16
1.2.2.8. The antibodies of ABO Blood Group	17
1.2.3. Rh Blood Group System	21

1.2.3.1. The antigens of the Rh system	22
1.2.3.2. The D antigen	24
1.2.3.3. Alleles at the D locus (D ^u)	27
1.2.3.4. Nomenclatures and genetic theories of Rhesus Blood Group System	31
1.2.3.5. Rh inheritance	36
1.2.3.6. Other Rh antigens	38
1.2.3.7. Development of Rh antigens	43
1.2.3.8. The antibodies of the Rh /Hr Blood Group System	43
Chapter -2	
RATIONALE AND OBJECTIVES	
Rationale and Objectives	47
2.1 Rationale:.....	47
2.2 objectives:.....	48
2.2.1 General objective:.....	48
2.2.2 Specific objectives:.....	48
Chapter -3	
MATERIALS AND METHODS	
3. Materials and Methods	49
3.1 Type and place of Study:.....	49
3.2 Study Population:.....	49
3.3 Research Tools:.....	49
3.4 Materials:.....	49
3.5 Methods:.....	50
3.5.1 Sampling.....	50
3.5.2 ABO grouping manual method:.....	50
3.5.3 Manual methods for Rh phenotype (DCEce antigens):	51
3.5.4 Gel Immune Diffusion Technique for Rh phenotype:.....	52
3.6 Data analysis.....	54
Chapter -4	
RESULTS	
4. Results.....	55
4.1 Characteristic of the study:.....	55
4.2 ABO Blood Group:.....	55
4.3 Rh Blood Groups:.....	55
Chapter -5	
DISCUSSION	
5.Discussion.....	69
Chapter -6	

CONCLUTION AND RECOMMENDATIONS	
6. Conclusion and Recommendations	72
6.1 Conclusion.....	72
6.2 Recommendations:.....	72
REFERENCES.....	74
APPENDICS	82

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

LIST OF TABLES

Table		Page
1.1	ISBT Human Blood Group Systems (2003)	7
1.2	ABO blood group antigen present on red blood cells and IgM antibodies present in the serum	12
1.3	Population data (Distribution of blood types among various populations)	14
1.4	The grade of reaction in ABO due to anti-A1	16
1.5	Variation in number of antigen sites with different Rh phenotypes	27
1.6	Correlation between Fisher-Race with Wiener Rh systems nomenclatures	33
1.7	Tippett's genetic model applied to the eight common Rh gene complexes.	35
1.8	Common Rh gene complexes in order of frequency for white and blacks	37
4.1	The Sex –related incidence distribution in Alnuba tribe	57
4.2	Frequencies and percentage of ABO Blood group distribution among Alnuba tribe	57
4.3	Rh Fisher incidence distribution a among Alnuba tribe	58
4.4	Frequencies and percentage of Rh (D) antigen distribution among Alnuba tribe	58
4.5	Frequencies and percentage of Rh (D) antigen distribution among Alnuba tribe	59
4.6	Frequencies and percentage of Rh(c) antigen distribution among Alnuba tribe	59

4.7	Frequencies and percentage of Rh (E) antigen distribution among Alnuba tribe	60
4.8	Frequencies and percentage of Rh (e) antigen distribution among Alnuba tribe	60

LIST OF FIGURES

Figure s		Page
1.1	the carbohydrate chains which determine the ABO blood group	12
1.2	The direct inheritance of D ^u	29
1.3	The effect of the C gene when in the “trans” position for D ^u .	29
1.4	Missing determinants of Rh _o (D) antigen	31
1.5	Rh inheritance with Fisher-Race nomenclature	36
1.6	Rh inheritance with Wiener nomenclature	37
4.1	Frequencies of ABO Blood group distribution among Alnuba tribe	61
4.2	Frequencies of Rh (D) antigen distribution among Alnuba tribe	62
4.3	Frequencies of Rh(C) antigen distribution among Alnuba tribe	63
4.4	Frequencies of Rh(c) antigen distribution among Alnuba tribe	64
4.5	Frequencies of Rh (E) antigen distribution among Alnuba tribe	65
4.6	Frequencies of Rh (e) antigen distribution among Alnuba tribe	66
4.7	Frequencies of Rh antigens (D, C, c, E, e) among Alnuba tribe	67

