Sudan University of Science and Technology

College of Graduate Studies

Frequency of ABO, Rh-D and Kidd Blood Group System Phenotypes in Nuba Sudanese Ethnic group

Kidd ABO,Rh-D

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Dedication

To my mother soul,

To my great man Father.

To my faithful wife Gihan.

To my lovely kids Ahmed and Razan.

To those who made it possible my teachers.

To all whom help me to succeed**.**

Acknowledgment

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ملخص الدراسة

هذه دراسة وصفية تحليلية هدفت لدراسة تردد الزمر الوظيفية والنمط الظاهري والوراثي لنظام الدم Kiddوالنمط الظاهري لنظام الدم ABO و العامل الريصى (D) . أجريت هذه الدراسة على قبيلة النوبة خلال فترة شهران. بعد أخذ الموافقة تم تجميع 100 عينة في وعاء 2.5 مل يحتوى على مادة مانعة للتخثر EDTA من أشخاص لا تربطهم صلة قرابة.

تم فحص العينات لمعرفة الزمر الوظيفية لنظام Kidd بواسطة Gel immunodifusion . ولنظام الدم ABO العامل الريصى تم استخدام طريقة الشريحة المباشرة. و قد اوضحت الدراسة ان فصيلة O تمثل الاغلبية بنسبة 54% تليها A بنسبة 29% و 14% تمثل B و اقل ترددا هى AB بنسبة 3% .

في نظام الدم Kidd وجد أن الزمرة الوظيفية Jk^a هي الأكثر شيوعا بنسبة (89%)وال Jk^b بنسبة (59%) .

تمت مقارنة النتائج المتحصلة في هذه الدراسة مع نتائج بعض الدراسات العالمية في نفس الأنظمة فوجد أن هنالك تشابه في بعض الزمر فلم توجد دراسة Kiddأما في نظام ABO & Rh and الوظيفية لنظام الدم سابقة في القبائل السودانية و قد اوصينا بوضع هذه الانتجينات فى الاعتبار فى بنوك الدم لتقليل اخطار نقل الدم.

Abstract

Objectives: The objective of the study is to measure the frequencies of ABO, Rh-D & Kidd phenotypes among the Nuba ethnic group. .A descriptive cross sectional study was conducted during the period from 1st April to 30th June2007.

Method: A total of 100 unrelated persons from this tribe were investigated by direct agglutination technique for ABO & Rh-D & grouping and gel immunodifusion technique for Jk^a and Jk^b antigens phenotyping.

Results: The study revealed that the highest frequent blood group phenotype in the study population in the is ABO system, group O (54%) followed by group A (29%), group B (14%) and lastly AB (3%). On the other hand, Jk^a antigens found in 89% of individuals of the study population while Jk^b was 59% was detected on this ethnic group.

Conclusion: Kidd blood group system antigens (Jk^a and Jk^b) phenotyping is essential in blood transfusion purposes. Therefore, it is recommended to perform for all Nuba tribe donors & recipients.

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