

Dedication

- *To the soul of my father, my first teacher, who was so patient with me. He taught me how to stand up against the cruelty of life with a grief of a woman not a cry of a child. . . Allah bless him.*
- *To my great beloved mother. To say that she is the one who guides me through the darkness of life and storm of frustration, would be an understatement. Instead it would be fairer to her to describe her role in my life as no less than dynamic.*
- *To the Queen of my heart, Nashwa, who brings to my life new meanings. She taught me how to love and to be loved. She kept encouraging me throughout this study.*
- *To my sweet, Minnah, whose smile drives me crazy.*
- *To my sister Sulafa and my brothers Yassir, Abazar & Hussin and all my family.*
- *To all my teachers I dedicate this study*

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ملخص البحث

هذه دراسة وصفية تحليلية أجريت في قبيلة الحلزقة بشرق السودان لتحديد نسبة الانتيجينات للأنظمة الدموية ABO, KELL في بعض الأشخاص الأصحاء ظاهرياً خلال فترة ثلاثة أشهر من أبريل حتى يوليو 2007. تم جمع 100 عينة من الدم الوريدي في وعاء دم سعة 2.5 مل يحوي مانع تجلط (EDTA) من الجنسين (76 ذكور/24 أنثى) لا يرتبطون بصلة قرابة من قبيلة الحلزقة تم فحصها باستخدام مضادات الامصال لنظام (ABO) وتقنية الانتشار الهلامي (جل) لنظام (KELL). تم ادخال المعلومات و النتائج في الكمبيوتر ومن ثم تم تحليلها باستخدام نظام التحليل الاحصائي SPSS. أظهرت النتائج المتحصلة في الدراسة أن نسبة توزيع زمر الدم التابعة للنظام ABO كالآتي :

أوضحت الدراسة ان الزمرة الوظيفية O هي الأكثر شيوعاً بنسبة ((48% ثم A بنسبة (27%)، ثم B بنسبة (22%) بينما الزمرة الوظيفية AB هي الأقل تردداً بنسبة (3%) وكان العامل الريصي (D) أكثر تردداً بنسبة (82%).

في نظام الدم Kell وجد ان الزمرة الوظيفية K2 هي الأكثر شيوعاً بنسبة (100%) بينما الزمرة الوظيفية K1 هي الأقل تردداً بنسبة (13%). والنمط الظاهري K-K هو الأكثر تردداً بنسبة (89%)، K+K هو الأقل تردداً بنسبة (11%) اما النمط الظاهري K+K- لا يوجد .

وكان النمط الوراثي K2K2 بنسبة (89%) و K1K2 بنسبة (11%) اما النمط الوراثي K1K1 لا يوجد .

وقد اثبتت الدراسة انه لا توجد علاقة ذات دلالة احصائية بين توريث الزمر الوظيفية لنظام KELL و توريث الزمر الوظيفية لنظام ABO كما لا يوجد فرق في توزيع الزمر الوظيفية بين الذكور والاناث. تمت مقارنة النتائج المتحصلة عليها مع نتائج بعض القبائل السودانية الأخرى وأظهرت المقارنه التوافق مع بعض القبائل الشك والحفاوين والنوير وعدم التوافق مع قبيلة المناصير.

Abstract

This study has been carried out among Alhalanga community in East Sudan, from June to August 2007, targeting those who are apparently healthy. It aims at analyzing the frequencies of ABO and Kell antigens and phenotypes. Hundred blood samples were collected into EDTA blood containers (2.5ml) from unrelated donors of both sexes (76 males & 24 females) of Alhalanga individuals; all samples were investigated by direct agglutination ABO and Gell technique to detect Kell system phenotypes (k_1, k_2). Data were analyzed by the computer using Statistical Package of Social Sciences (SPSS).

The study showed that the O phenotype was the commonest with the frequency of (48%), followed by A (27%), B (22%) While the AB was the least common (3%). Rh (D) antigen was found with high frequency (82%).

The results showed that there was no statistical significant association between the occurrence of Kell phenotypes (K_1, K_2) and gender, as well as phenotype of ABO blood group.

In the Kell blood group system K_2 was the commonest antigen with the frequency of (100%), while k_1 antigen was with low frequency (13%). The phenotype $K-K^+$ was found with the high

frequency (89%), while K+K+ was found with low frequency (11%), but the phenotype K+K- was not found.

The genotype K2 K2 was with high frequent (89%), K1K2 was found with low frequency (11%), and the genotype K1K1 was not found.

The results obtained were compared with results of other Sudanese tribes which showed agreement with Alshuluk, Alhalfawein and Elnuer, disagreement with Almanaseer.

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