

**Sudan University of Science and Technology  
College of Graduate Studies**

***Determination of The Frequencies of ABO  
And Kell Phenotypes In Al- Bani Amer Tribe***

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# Didication

- ***To the one who has been and will remain an example I endeavor to follow in pursueing and in serving others.....To the soul of my brother***

***Dr. Haitham***

***God bless him***

- ***To those who lit my path through the darkness of life and saw me through my first steps of learning***  
***To my Father and Mother***
- ***To my brothers and sisters***
- ***To my teachers and friends***

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# Abstract

This study was carried out among Bani Amer tribe in eastern Sudan to determine the frequency of ABO and Kell phenotypes.

Hundred samples were collected from unrelated donors of Bani Amer individuals, investigated by direct agglutination technique for ABO system screening and by gel immunodiffusion technique to detect Kell phenotypes. Data were analysed by computer using SPSS program.

The frequency of group A blood was 33%, B 17%, O 47%, and group AB blood was 3%.

The frequency of Kell-1 (K1) was found to be 7% and Kell-2 (K2) was 100%.

The study showed that there is no statistical significant association between the occurrence of Kell phenotypes ( K1 , K2 ) and gender, as well as phenotype of ABO blood group.

It was concluded all Bani Amer patients and donors should be screened for Kell blood group phenotypes as a part of compatibility testing before transfusion.

أجريت هذه الدراسة فى قبيلة البنى عامر بشرق السودان لتحديد نسبة الانتيجينات للانظمة الدموية ABO فى الأشخاص الأصحاء ظاهريا.

تم جمع مائة عينة من الدم الوريدى من الجنسين (80 ذكور/ 20 أناث) لايرتبطون بصلة قرابة من قبيلة البنى عامر تم فحصها وتحليلها باستخدام مضادات الامصال لنظام ABO وتقنية الانتشار الهلامى (جل) لنظام Kell . تم ادخال المعلومات والنتائج الكمبيوتر وتحليلها باستخدام نظام التحليل الاحصائى SPSS . أظهرت النتائج المتحصلة فى الدراسة ان :

نسبة الانتيجين A	33%
نسبة الانتيجين B	17%
نسبة الانتيجين O	47%
نسبة الانتيجين AB	3%
نسبة الانتيجين K1	7%
نسبة الانتيجين K2	100%

وقد اثبتت الدراسة انه لاتوجد علاقة ذات دلالة احصائية بين توريث الانتيجينات لنظام ك و توريث الانتيجينات لنظام ابو كما لا يوجد فرق فى توزيع الانتيجينات بين الذكور والاناث

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