

## ***Dedication***

- ***To my precious and beloved parents who are always for me and who have always been my guiding light, shining on every single step in my life.***
- ***To my brother Mohanned and Mohammed, and my sister Nancy for their help and support.***
- ***To my beloved friends Lmya, Lydia, and Sara.***
- ***To Amged for his encouragement.***
- ***To all those who loves me and I love.***

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## ***Abstract***

This descriptive study was conducted to determine the ABO phenotypes and their frequencies and Kel 1 ,Kel 2 antigens frequencies among Al-Halfawein tribe. It was done during the period from 1<sup>st</sup> May 2005 to 30<sup>th</sup> July2005.

Hundred unrelated apparently healthy individuals from the tribe (63% males, 37% females) were included in the study after written consent, and interviewed using questionnaire forms.

After collecting venous samples from the volunteers, the blood samples were analyzed in Sudan University Hematology lab by using conventional antisera and gel diffusion technique, and then the collected data were analyzed using SPSs computer programme.

The obtained results were as follows:

- Blood group O : 44%
- Blood group A : 31%
- Blood group B : 22%
- Blood group AB: 3%
- K 2 antigen : 100%
- K 1 antigen : 5%
- K-1,+2 phenotype :95%
- K+1,+2 phenotype :5%

## ملخص البحث

أجري هذا البحث لتحديد الأنماط الظاهرية ونسبة أنتيجينات النظام الدموي ABO ونسبة الأنتيجينات Kel 1, Kel 2 في قبيلة الحلفاوينز أجري في الفترة من شهر مايو وحتى شهر يوليو.

تضمنت الدراسة 100 شخص (63% ذكور و 37% أناث)، أصحاء ظاهرياً، بعد كتابتهم للأقرار، وإخضاعهم للإستبيان خاص.

بعد أخذ عينات الدم من الوريد من المتطوعين، تم تحليل العينات في مختبر علم الدم بجامعة السودان باستخدام اللأمصال الروتينية و تقنية انتشار الهلام، وتم إدخال البيانات المأخوذة وتحليلها باستخدام نظام SPSS في الكمبيوتر.

كانت النتائج المتحصلة كما يلي:

نسبة النمط الظاهري O: 44%  
نسبة النمط الظاهري A: 31%  
نسبة النمط الظاهري B: 22%  
نسبة النمط الظاهري AB: 3%  
نسبة أنتيجين K 2: 100%  
نسبة أنتيجين K 1: 5%  
نسبة النمط الظاهري K-1,+2 : 95%  
نسبة النمط الظاهري K+1,+2 : 5%

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