## Dedication

To my dear Mother.....

My Father...

My Lister...

My Brothers.

## Acknowledgment

My best thanks to my supervisor Dr. Abd

Allah Abd Alkareem Osman director of researches and

laboratories unit Khartoum Hospital for his patience,

guidance, generosity, valuable criticism, and encouragement

throughout the course of research work.

Also my thanks extended to all my teatchers in Sudan University with special thanks to Cstaz Malek Hassan Affadni and my colleagues Hytham Ahmed, Mohi Aldeen Abas and yasir yousif for their constant care and valuable advice

## **Abstract**

This is a descriptive study was done during the period; May to September 2005; it was conducted to establish the frequency of ABO, Kell and Cellano antigens among apparently healthy ALshokria tribe individuals.

100 volunteers (62 male and 38 females) according certain criteria and interviewed using questionnaire form. Venous blood samples were collected from them and analyzed in Sudan university of science and technology hematology laboratory using conventional antisera for ABO and ID technique for Kell .SPSS computer program was used for data analysis.

Results obtained showed following frequencies of ABO and Kell phenotypes:

- O phenotype 64 %
- A phenotype 22 %
  - B phenotype 1
- AB phenotype 3 %
- K2 phenotype 100 %
- K1 phenotype 3 %

## **Contents** Dedication: Acknowledgement: ..... II Contents: Chapter 1: Introduction 1-3 Chapter 2: Literature review.....4-22 Definitions......4 2.1 Kell blood group system......6 2.1.1 Kell antigens .......6 2.1.2 Kell antibodies .......9 ABO blood group system......13 Chapter 3: Objectives 23 Chapter 4: Methodology .....26 4.1 Study Design

4.2 Study Population
4.3 ID technique Method
4.4 principle of ID
4.4.1 Reagent and Materials of ID
4.4.2 samples
4.4.2.1 Blood Collection
4.4.2.2 Preparation of samples
4.4.4Control
4.4.5 Test procedure
4.4.6 Interpretation of the results
4.5 Reagents and material of ABO
4.5.1 Samples
4.5.2 Procedure of ABO
4.5.3 Interpretation of results
Chapter 5: Results
Chapter 6: Discussion42-
Conclusion41
Recommendation
References