

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال الله تعالى:

﴿ نَرْفَعُ دَرَجَاتٍ مِّنْ نَّشَأٍ وَفَوْقَ كُلِّ ذِي عِلْمٍ عَلِيمٌ ﴾

صدق الله العظيم

سورة يوسف (الآية 76)

Dedication

To our mother

Who lactating us the meaning of the patience and loyalty.

To our father

Who teaches us the meaning of the given .

To our sisters.

To the candles of sciences and acknowledgment.

Our teachers.

To our friends who are shearing us in the road.

Acknowledgment

We thank God first and foremost for giving us the health and strength until we reached this stage. With great respect we would like to thank Dr. Hisham Abdalhameed, our supervisor, for his encouragement, supervision, time, patience, effort, critical comment, and invaluable sound advice and support and careful guidance.

Thanks to the volunteers who were enrolled in this study. Also, we would like to thank those who contributed to our research and participated with us in this research.

Finally, we would like to thank all colleagues, all our friends, and every member of our family who have supported us, and who supported us financially or morally.

Abstract

Smoking use is widely spread through out the world . The effect of smoking on human health are serious and in many cases , deadly .

This is cross sectional study conducted during period from April 2018 to measure ALT & AST activities between smokers and non smokers.

Thirty smokers were selected as test group and thirty non smokers as control group (age was matched (30-65)).Blood specimens collected from both groups , and serum ALT &AST activities were determined by using autoanalyzer (mindary).

Insignificant in means of serum AST &ALT activities in smokers when compared to control group .

The results also showed a insignificant correlatin between age and serum AST&ALT activity.

Statistical analysis also showed a insignificant correlation between duration of smoking and serum AST&ALT activity.

Result also showed insignificant correlation between number of cigarette per day and serum AST & ALT.

No correlation between AST & ALT activities with duration of smoking per years, no correlation between AST & ALT activities with age , no correlation between AST &ALT activities with number of cigarette per day.

المستخلص

استخدام السجائر ينتشر على نطاق واسع في جميع انحاء العالم . آثار التدخين على صحة الانسان هي خطيرة و في كثير من الحالات قاتلة .

هدفت هذه الدراسة في الفترة ما بين مارس الى ابريل ٢٠١٨ لقياس نشاط الاسبارتيت ترانس امينيز , الالنين ترانس امينيز بين المدخنين و غير المدخنين.

تم اختيار ٣٠ شخص من المدخنين (كمجموعة اختبار) و ٣٠ شخص غير مدخن (كمجموعة ضابطة) , تم جمع عينات الدم من كل المجموعتين , وتم قياس نشاط الاسبارتيت ترانس امينيز , الالنين ترانس امينيز استخدام جهاز Mindary.

اظهرت النتائج التحليل الاحصائي إلى أن ليست هنالك زيادة ذات دلالة احصائية في متوسط نشاط الاسبارتيت ترانس امينيز و الالنين ترانس امينيز عند المدخنين مقارنة مع المجموعة الضابطة.

ايضا اظهرت النتائج ان ليست هنالك علاقة ايجابية ذات دلالة احصائية بين العمر و الاسبارتيت ترانس امينيز .

اظهر التحليل الاحصائي ايضا أن ليست هنالك علاقة ايجابية ذات دلالة احصائية بين مدة التدخين بالسنوات مع نشاط الاسبارتيت ترانس امينيز .

وايضا اظهرت النتائج ان ليست هنالك علاقة ايجابية ذات دلالة احصائية بين السجارات في اليوم ونشاط الترانس امينيز .

ليست هنالك زيادة في نشاط الاسبارتيت ترانس امينيز و الالنين ترانس امينيز مع مدة التدخين بالسنوات و مع التقدم في السن و عدد السجارات في اليوم .

Table of contents

Subject	Page number
الآية	I
Dedication	II
Acknowledgment	III
Abstract English	IV
Abstract Arabic	V
Contents	VI
List of tables	VIII
List of figures	IX
Abbreviations	X
Chapter one (Introduction and literature review)	
1.1 Introduction	1
1.1.1 The liver	1
1.1.1.1 Liver function tests	1
1.1.1.2 Liver enzymes	2
1.2 literature review	2
1.2.1 Physiology of smoking	2
1.2.2. Effect of smoking in health	2
1.3 Justification	3
1.4 Objectives	4
1.4.1 General objective	4
1.4.2. Specific objectives	4
Chapter two (Material and Methods)	
2.1. Materials	5
2.1.1. Study design	5
2.1.2. Study area	5
2.1.3. Study population	5

2.1.3.1 Inclusion Criteria	5
2.1.3.2 Exclusion criteria	5
2.1.4. Samples	5
2.1.5 Ethical consideration	5
2.1.6. Equipments	5
2.1.7. Data analysis	6
2.2. Methods	6
2.2.1. Estimation of serum aspartate aminotransferase	6
2.2.2. Estimation of serum alanin aminotransferase	6
Chapter Three (Results)	
3. Results	8
Chapter Four (Discussion, Conclusion and Recommendations)	
4.1 Discussion	23
4.2 Conclusion	24
4.3 Recommendations	24
References	25
Appendices	26

List of Tables

Subject	Page number
(3.1) Distribution of study group according to age	8
(3.2) Distribution of study group according to duration of smoking	9
(3.3) Distribution of study group according to number of cigarette smoke per day	10
(3.4) Distribution of study group according to type of smoking	11
(3.5) Distribution of study group according to other hereditary disease among study group	12
(3.6) Distribution of study group according to AST	13
(3.7) Distribution of study group according to ALT	14

List of Figures

Subject	Page number
(3.1) Distribution of study group according to age	8
(3.2) Distribution of study group according to duration of smoking	9
(3.3) Distribution of study group according to number of cigarette smoke per day	10
(3.4) Distribution of study group according to type of smoking	11
(3.5) Distribution of study group according to other hereditary disease among study group	12
(3.6) Distribution of study group according to AST	13
(3.7) Distribution of study group according to ALT	14

Abbreviations

ALT : Alanin Aminotransferase

AST: Aspartate Aminotransferase

DNA: Deoxy Nucleic Acid

NAD: Nicotine Amid Di Nucleotide

NADH: Reduction Nicotine Amid Di Nucleotide