

Dedication

Due to their support, pushing and care during all the hard work and their determination for my research to succeed and this work exist in this final form.

I dedicate it with my love to....

- My mothers... the river of kindness and support,

- To my mother on the sky, who had one wish which is how we will be the best in this world , I say to her I am here.

- TO my fathers... the candle of knowledge, my dad who helped me with the writing of part of this research.

- To my sisters and brothers, for their continuous and unconditional support.

Finally to Mr. Mohammed Elamin **whom I couldn't** without his help complete this thesis.

I wish them all great success and happiness in their lives...

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Abstract

This is a cross-sectional descriptive and analytical study, conducted at Khartoum teaching hospital during the period from March 2010/ September 2010. The aim of this study was to estimate the fibrinogen level in Sudanese smokers who attended in Khartoum teaching hospital.

Sixty Sudanese healthy smokers were informed about the study and their agreement for participation was obtained. The study population was divided in to three groups according to the duration of smoking and number of cigarettes smoked per day as follows:

The first group was smoking for less than 10 years, the mean of fibrinogen level was 3.33g/L , while the second group were smoking for 10 to 20 years, the mean of fibrinogen level was 5.39g/l. And the third group was smoking for more than 20 years, the mean of fibrinogen level was 7.14g/l.

According to the number of cigarettes smoked per day the population was also divided into three groups, the mean of fibrinogen level was 3.41g/l in the first group who smoked less than 10 cigarette /day, 5.7g/l in the

second group who smoked from 10 to 20 cigarette /day, and 6.97g/l in the third group who smoked more than 20 cigarette /day.

The results obtained indicated that the fibrinogen level was in the normal range in the first group according to intensity and duration of smoking. But in comparison with control group, fibrinogen level was statistically higher. While the fibrinogen level was much raised in the other groups and the rise is statistically significant in comparison with control group, p value=0.000.

Finally, In conclusion the results obtained in the current investigation proved that smoking increased the level of fibrinogen and the increase in level is directly related to the duration of smoking and number of cigarettes smoked/day.

النتائج والنتائج

هذه دراسة مقطعية وصفية وتحليلية ، أجريت في مستشفى الخرطوم التعليمي خلال الفترة مارس 2010 / سبتمبر 2010. وكان الهدف من هذه الدراسة تقدير مستوى الفيرينوجين في دم المدخنين السودانيين. وقد تم الحصول علي موافقة ستون مدخنا للمشاركة في هذه الدراسة حيث تم تقسيم مجتمع الدراسة إلى ثلاث مجموعات وفقا لمدة التدخين و ثلاثة مجموعات اخري وفقا لعدد تدخين السجائر المستهلك يوميا

: بالنسبة المجموعات التي تم تقسيمها وفقا لمدة التدخين

كان متوسط مستوى الفيرينوجين للمجموعة الأولى والتي كانت تدخن لمدة تقل عن 10 سنة ، 3.33 جرام / لتر في حين أن المجموعة الثانية والتي تدخن بين 10 حتي 20 سنة 5.39 جرام / لتر. المجموعة الأخيرة والتي كانت تدخين أكثر من 20 عاما ، وكان متوسط مستوى الفيرينوجين لديهم 7.14 جرام / لتر.

وفقا لعدد السجائر في اليوم الواحد قسم المدخنين إلى ثلاث مجموعات أيضا:

وكان متوسط مستوى الفيرينوجين 3.41 جرام / لتر في المجموعة الأولى الذين يدخنون أقل من 10 سيجارة يوميا ، 5.7 جرام/لتر في المجموعة

الثانية الذين يدخنون من 10 - 20 سيجارة يوميا ، و6.97 جرام / لتر في المجموعة الأخيرة الذين يدخنون أكثر من 20 سيجارة يوميا وتشير النتائج إلى أن مستوى الفيبرينوجين كان في المعدل الطبيعي في المجموعة الأولى وفقا لكثافة ومدة التدخين، ولكن بالمقارنة مع المجموعة الضابطة ، كان مستوى الفيبرينوجين أعلى إحصائيا. كان مستوى الفيبرينوجين زائدا في المجموعات الأخرى مقارنة مع المجموعة الضابطة ، إحصائيا قيمة المعنوية كبيرة = 0.000 نخلص إلى أن مستوى الفيبرينوجين يزيد وفقا لمدة التدخين وعدد السجائر في اليوم الواحد.

List of Abbreviation

Abbreviations	Item
ADP	Adenosine diphosphate
PDGF	Platelet-derived growth factor
TG-alpha	Transforming growth factor alpha
ATP	Adenosine triphosphate
GP	Glycoproteins
VWF	Von willebrand factor
HMWK	High molecular weight kininogen
TFPI	Tissue Factor Pathway inhibitors
PAF	Platelet activating factor
DIC	• disseminated intravascular coagulation
HDL	High density lipoprotein

MAO	Monoamine oxidase
HPA	Hypothalamic-pituitary axis
IL	Interleukin
TNF	Tumor necrosis factor
CRH	Corticotrophin releasing hormone
IRS-1	Insulin receptor substrate-1
CRP	C-reactive protein
SPSS	Statistical package for social science
CA	Coagulation analyzer

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