Dedication

To whom give me love, kindness and power supply to survive
my mother, brothers, and my sisters……
To those who give me support and encourage
My uncle…….
To whom put the sun in my mind
My teachers ……

Acknowledgment

Thanks god for helping me and give me greatest family …..

Thanks for Dr.Munsoor Mohamed Munsoor for all support and tolerance he showed with every one …

Thanks for my colleagues Mohamed Alamin Mustafa for helping me..and Aziza Abdalrahman…

Thanks for my nephew hammam for all help..

Thanks for my friend Huda Yousif for help and support **me**

Thanks for Khartoum teaching hospital staff for all the help they offered

Abstract

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

.fifteen apparently healthy nonsmokers and fifty Sudanese apparently healthy smokers were informed and agree to participate in the study. The smokers were divided in to three groups according to the duration of smoking or number of cigarette per day as follow:

According to duration of smoking the first group were smoking for less than 10 years, the mean of fibrinogen level recoded 2, 88 g/l in this group, while the second group were smoking between 11 to 20 years, the mean of fibrinogen level recorded 5,63g/l .the last group were smoking for more than 21 years, the mean of fibrinogen level recorded 7,1g/l.

According to number of cigarette per day the study population were divided also in to three group, the mean of fibrinogen level was 3,08g/l in the first group who smoked less than 10 cigarette /day 6,02 in the second group who smoked from 11to 20 cigarette /day ,and 6,97 in the last group who smoked more than 21 cigarette /day.

The samples investigated by using the Sysmex automated blood coagulation analyzer CA500 to estimate the fibrinogen levels.

The results indicated that fibrinogen level was within the normal range in the first groups according to intensity and duration of smoking. But in comparison with control groups, fibrinogen levels were statistically higher. While fibrinogen levels were abnormally and significantly higher in the others groups in comparison to the control group, p value <0.005.

The correlation between the number of cigarette and duration of smoking indicated high correlation with fibrinogen level. (P.value < 0.001).

المستخلص

هذه دراسة مقطعية وصفية تحليلية تم إجراؤها بولاية الخرطوم في الفترة مابين مارس 2010 حتى مايو 2010،الهدف من هذه الدراسة قياس مستوى الفبرينوجين في السودانيين المدخنين الذين يقيمون في ولاية الخرطوم .

أخذت 15عينة من مشاركين اصحاء ظاهريا وغير مدخنين و 50 عينة من مدخنين أصحاء ظاهريا بعد إخطارهم بهذه الدراسة وأهميتها واخذ موافقتهم على المشاركة. قسم المدخنون إلي ثلاث مجموعات اعتمادا على فترة التدخين او عدد السيجارات في اليوم كالأتي:

اعتمادا على فترة التدخين المجموعة الأولى مدخنين لفترة اقل من 10 سنوات وسجل متوسط الفبرينوجين لديهم 2.88 glL، المجموعة الثانية مدخنين لفترة مابين 11-20 سنة و قد سجل متوسط الفبرينوجين لديهم 5.63g\L،المجموعة الأخيرة وهم المدخنين لأكثر من 21 سنة وسجل متوسط الفبرينوجين لديهم 7.1glL

اعتمادا على عدد السيجارات في اليوم لدينا ايضا ثلاث مجموعات ،سجل متوسط الفبرينوجين 3.08 glL في المجموعة الأولى والذين يدخنون اقل من 10 سيجارات في اليوم، 6.02glL في المجموعة الثانية والذين يدخنون مابين 11-20 سيجارة يوميا،6.97glL في المجموعة الأخيرة والذين يدخنون أكثر من 12 سيجارة في اليوم

تم تحليل العينات باستخدام جهاز analyzer CA 500 لقياس مستوي الفيبرنوجين.

اشارت النتائج إلي أن مستوى الفبرينوجين كان في المدى الطبيعي المجموعة الأولى اعتمادا على فترة التدخين وكثافته ولكن مقارنة مع المجموعة الضابطة كان ذا دلالة إحصائية، بينما نلاحظ ان مستوى الفبرينوجين كان غير طبيعي في المجموعات الأخرى ووجود فرق ذو دلالة إحصائية.

الارتباط بين عدد السيجارات وفترة التدخين مع مستوي الفيبرينوجين إشارة إلي وجود ارتباط عالي .

LIST OF ABBREVIATION

Abbreviations	Item
ADP	Adenosine diphosphate
DIC	Dissiminated intra vascular coagulation
FDPs	Fibrin degradation product
GPIa	Glycoprotein 1 a
GPIb	Glycoprotein 1b
GPIIa	Glycoprotein 1I a
GPIIb	Glycoprotein Iib
GPIIIa	Glycoprotein IIIa
HMWK	High molecular wight kininogen
PAF	Platelet activation factor
PLA_2	Phospholipase A_2
TF	Tissue factor
TFPI	Tissue factor pathway inhibitor
TXA_2	Thromboxan A_2
VKORC	Vitamin K peroxide reductase
vWF	Vonwillebrand factor

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