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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم

بعض الوثائق الأصلية تالفة

A STUDY OF SOME PROTECTIVE AND PREDISPOSING FACTORS AFFECTING THROMBOGENESIS IN RATS

Thesis

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Physiology*

By

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



﴿وقل رب زدني علما﴾

أجتماع لجنة الحكم على الرسالة المقدمة من

الطبيب / ليلى أحمد

توطئة للحصول على درجة الماجستير / الدكتوراة

في السيولوجيا

أستدعيكم في اجتماع اللجنة لدراسة الرسالة المقدمة من

Factors affecting thrombogenesis in rats.

بإدارة الأستاذ : د. محمد عبد الحليم الوائلي

العوامل المساعدة لتكوين الجلطة في الفئران

بناء على ما وافقه الجامعة بتاريخ ١٠ / ١ / ٩٠ تم تشكيل لجنة الفحص والمناقشة للرسالة
المقدمة أعلاه من قبل الطالب التالي :-

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وقد تم فحص الرسالة بواسطة كل عضو منفردا وكتابة تقارير منفردة لكل منهم لمناقشة اللجنة مجتمعة في

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للي أحمد السيد أحمد توطئة للحصول على درجة الماجستير

في السيولوجيا

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Abstract

Thrombogenesis is classified into arterial and venous thrombogenesis. Arterial thrombogenesis is developed in the atherosclerotic arteries. In venous thrombogenesis there is increase in blood coagulability due to activation of the coagulation process. We tested the effects of some protective factors such as vitamin A and high fibre diet and some risk factors such as passive smoking and low estrogen state on thrombogenesis. Vitamin A decreased thrombogenesis through decreased platelet aggregation %, High fibre diet decreased the level of total cholesterol, LDL-C and triglyceride level also increased the level of AT III concentration %. Passive smoking increased platelet aggregation %, decreased AT III % and decreased HDL-C level on the other hand tamoxifen decreased the level of AT III % and decreased the level of total cholesterol, LDL-c and increased HDL-c. Ovariectomy decreased AT III %, and increased T-cholesterol and LDL-c but decreased HDL-c level. These data point to the dietary value and the hazardous effect of air pollution and low estrogen state on the thrombogenesis.

Key words:

Thrombogenesis, Protective factors, Risk factors.

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LIST OF ABBREVIATIONS

APC	: Activated protein C
Apo	: Apolipoprotein
Apo-A	: Apolipoprotein-A
Apo-B	: Apolipoprotein-B
APTT	: Activated partial thromboplastin time
ATIII	: Antithrombin III
B-TG	: B-thromboglobulin
C.AMP	: Cyclic adenosine monophosphate
C.GMP	: Cyclic guanosine monophosphate
CAD	: Coronary arterial disease
CHD	: Coronary heart disease
CS	: Cigarette smoking
EDRF	: Endothelial derived relaxing factor
ELAMs	: Endothelial-leucocyte adhesion molecules
ER	: Estrogen receptor
FFA	: Free fatty acid
FGF	: Fibroblast growth factor
GM-CSF	: Granulocyte-monocyte colony stimulating factor
(HB-EGF)	: Heparin binding epidermal growth factor
HDL-C	: High density lipoprotein cholesterol
HMWK	: High molecular weight kininogen
ICAM-1	: Intercellular adhesion molecule-1
IDL	: Intermediate density lipoprotein
IL-1	: Interleukin-1
LCAT	: Lecithin cholesterol acyltransferase
L-NMMA	: N-monomethy-L-arginine
LDL-C	: Low density lipoprotein-cholesterol
LP(a)	: Lipoprotein (a)
(M-CSF)	: Monocyte colony-stimulating factor
MDA	: Malondialdehyde
MRFIT	: Multiple risk factor intervention trial

NO	: Nitric oxide
OXLDL	: Oxidized low density lipoprotein
PAI-1	: Plasminogen activator inhibitor-1
PDGF	: Platelet derived growth factor
PET	: Positron emission tomography
PT	: Prothrombin time
PUFAs	: Polyunsaturated fatty acids
SHBG	: Sex hormone-binding globulin
SMC	: Smooth muscle cells
SOD	: Superoxide dismutase
t.PA	: Tissue plasminogen activator
TGF-B	: Transforming growth factor B
TNF	: Tumour necrosis factor
TxA ₂	: Thromboxane A ₂
VCAM-1	: Vascular cell adhesion molecule-1
VLDL	: Very low density lipoprotein
VsMCs	: Vascular smooth muscle cells

LIST OF TABLES

Table (1): Shows the percentage platelet aggregation; prothrombin time (PT) (in seconds); activated partial thromboplastin time (APTT) (in seconds), antithrombin III concentration %, total cholesterol, LDL-c, HDL-C, and triglyceride levels (mg/dl); and HDL-c/ total cholesterol % in normal adult female rats {Control group (1)}.

Table (2): Shows the percentage platelet aggregation; prothrombin time (PT) (in seconds); activated partial thromboplastin time (APTT) (in seconds), antithrombin III concentration %, total cholesterol, LDL-c, HDL-C, and triglyceride levels (mg/dl); and HDL-c/ total cholesterol % in adult female rats administered vitamin A at a dose of 0.33mg/kg subcutaneously daily for one month (Group II).

Table (3): Shows the percentage platelet aggregation; prothrombin time (PT) (in seconds); activated partial thromboplastin time (APTT) (in seconds), antithrombin III concentration %, total cholesterol, LDL-c, HDL-C, and triglyceride levels (mg/dl); and HDL-c/ total cholesterol % in adult female rats received 1.5 gr guar gum daily for one month. (Fibre fed group III).

Table (4): Shows the percentage platelet aggregation; prothrombin time (PT) (in seconds); activated partial thromboplastin time (APTT) (in seconds), antithrombin III concentration %, total cholesterol, LDL-c, HDL-C, and triglyceride levels (mg/dl); and HDL-c/ total cholesterol % in rats who exposed to passive smoking that was increased gradually over a period of one month (Passive smoking group IV).

Table (5): Shows the percentage platelet aggregation; prothrombin time (PT) (in seconds); activated partial thromboplastin time (APTT) (in seconds), antithrombin III concentration %, total cholesterol, LDL-c, HDL-C, and triglyceride levels (mg/dl); and HDL-c/ total cholesterol % in rats received tamoxifen (estrogen receptor blocker) at 5mg/day IM for one month. (Group V) .

Table (6): Shows the percentage platelet aggregation; prothrombin time (PT) (in seconds); activated partial thromboplastin time (APTT) (in seconds), antithrombin III concentration %, total cholesterol, LDL-c, HDL-C, and triglyceride levels (mg/dl); and HDL-c/ total cholesterol % in ovariectomized adult female rats {one month following ovariectomy (Group VI)} .

Table (7) :

Show the mean values of the percentage platelet aggregation and their statistical significance and percentage difference from the mean value of the control group, in the different groups studied.

Table (8) :

Show the mean values of the prothrombin time (PT) (inseconds) and their statistical significance and percentage difference from the mean value of the control group, in the different groups studied.

Table (9) :

Show the mean values of the Activated partial thromboplastin time (APTT) (insconds) and their statistical significance and percentage difference from the mean value of the control group, in the different groups studied.

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Show the mean values of the Antithrombin III concentration percent and their statistical significance and percentage difference from the mean value of the control group, in the different groups studied.

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Show the mean values of the total cholesterol level (mg/dl) and their statistical significance and percentage difference from the mean value of the control group, in the different groups studied.

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Show the mean values of the Low density lipoprotein cholesterol (LDL-c) (mg/dl) and their statistical significance and percentage difference from the mean value of the control group, in the different groups studied.

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Show the mean values of the High density lipoprotein cholesterol (HDL-c) (mg/dl) and their statistical significance and percentage difference from the mean value of the control group, in the different groups studied.

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Show the mean values of the Triglyceride level (mg/dl) and their statistical significance and percentage difference from the mean value of the control group, in the different groups studied.

Table (15) :

Show the mean values of the high density lipoprotein cholesterol / total cholesterol percentage and their statistical significance and percentage difference from the mean value of the control group, in the

