بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

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RESISTANCE TO ACTIVATED PROTEIN C IN CEREBROVASCULAR THROMBOTIC STROKE

Thesis
Submitted for Partial Fulfillment
of Ms.C. Degree in Clinical and Chemical Pathology

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ABSTRACT

Resistance to activated protein C is an inherited autosomal dominant coagulation abnormality that is increasingly recognized as an important etiology for thromboembolic disease and stroke in young adults. The aim of this work is to study the relation between APCR and stroke and to determine how frequently it's associated with factor V Leiden mutation. This study included 32 young stroke patients subjected to coagulometric method for APCR detection. The positive cases were submitted to DNA analysis for FV gene mutation. Results revealed 21.9% having APCR 51.9% of whom were proved to have the mutation. We concluded that APCR due to FVL mutation is considered as an etiology for venous and arterial thromboses causing cerebral ischaemia in young patients without other risk factors.

Key words: activated protein C resistance – thrombosis – stroke – young.

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CONTENTS

LIST OF ABBREVIATIONS

A:	Adenine
AD:	Autosomal dominant
ADP:	Adenosine diphosphate
APC:	Activated protein C
APCR:	Activated protein C resistance
APTT:	Activated partial thromboplastin time
AR:	Autosomal recessive
Arg:	Arginine
ATP:	Adenosine triohosphate
ATIII:	Anti-thrombin III
bp:	base pair
C:	Cytosine
c AMP:	cyclic adenosine monophosphate
C_4 bBP:	C_4 b-binding protein
COOH:	Carboxy terminal
CT:	Computerized tomography
CVS:	Cerebrovascular stroke
DNA:	Deoxy ribonucleic acid
DVT:	Deep venous thrombosis
ECs:	Endothelial cells
EDRF:	Endothelial-derived relaxing factor
EDTA:	Ethylenediamine tetra-acetic acid
EGF:	Epidermal growth factor
ELISA:	Enzyme-linked immunosorbant assay
FDPs:	Fibrin degradation products
FSPs:	Fibrin split products
FV:	Factor V
FVa:	Activated factor V
FVL:	Factor V Leiden
FVII:	Factor VII
G:	Guanine
gla:	γ-carboxy glutamic acid
Gln:	Glutamine
GP:	Glycoprotein
HCII:	Heparin cofactor II
HMWK:	High molecular weight kininogen
IL-I:	Interleukin-I
Kb:	Kilo base

LACI:	Lipoprotein associated coagulation inhibitor
Lys:	Lysine
mM:	milli Mole
Mr:	Molecular weight
mRNA:	messanger ribonucleic acid
NH2:	Amine terminal
PACI:	Partial anterior circulation infarction
PAI:	Plasminogen activator inhibitor
PCR:	Polymerase chain reaction
PGI_2 :	Prostacyclin
PI:	Phosphatidyl inositol
PL:	phospholipids
POCI:	Posterior circulation infarction
PROC gene:	Protein C gene
PTT:	Partial thromboplastin time
Q:	Glutamine
R:	Arginine
SDS:	Sodium dodecyl sulphate
SEM:	Subendothelial microfibrils
SERPINS:	Serine protease inhibitors
T:	Thymine
TACI:	Total anterior circulation infarction
TF:	Tissue factor
TFPI:	Tissue factor pathway inhibitor
TM:	Thrombomodulin
TNF:	Tumour necrosis factor
UPA:	Urokinase plasminogen activator
VC:	Vasoconstriction
VKD:	Vitamin K dependent
vWF:	von Willebrand factor