



Faculty of Science
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Evaluation of the Antitumor Effects of Some Fractions Isolated From *Cerastes cerastes* Viper Venom

A Thesis

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CONTENTS

Title	Page
Acknowledgement	
Abstract	
Contents	I
List of abbreviations	IV
List of tables	VIII
List of figures	XIII
Introduction	1
Aim of the work	5
Review of literature	7
Components of snake venoms	7
Chemotherapy	11
Effect of cisplatin and doxorubicin on cancerous cells	12
Effect of snake venoms on cancer cells	17
Snake venom components with antitumor activity	18
Materials and Methods	30
Venom Source and Collection	30
Experimental Animals	30
Cell line	30
Chemicals	30
Fractionation of the Crude Venom	31
Re-fractionation of <i>Cerastes cerastes</i> Fractions on Sephadex G-50 Column	32
Sodium Dodecyl Sulphate Polyacrylamide Gel Electrophoresis	32
Determination of Phospholipase A₂ Activity	33
Determination of the Proteolytic Activity	34
Determination of the 50 % Inhibitory Concentration (IC₅₀)	34
Morphological Studies	36
Anti-proliferative Activity of Crude Venom and its	36

Fractions in Combination with the Drugs	
Flow cytometric analysis	37
Cell Cycle Analysis	37
Determination of Caspase-3/7 Concentration	38
Apoptosis Assay	38
Determination of the Median Lethal Dose (LD₅₀)	38
Determination of the Mortality Rate	41
Statistical analysis	43
Results	44
Fractionation of the Crude Venom	44
Determination of Phospholipase A₂ activity	44
Determination of the Proteolytic activity	44
Sephadex G-50 Column Chromatography of <i>Cerastes cerastes</i> Venom Fractions	46
Determination of the Phospholipase A₂ Activity of the Venom Sub-fractions	49
Determination of the Proteolytic Activity of the Venom Fractions	49
Sodium Dodecyl Sulphate Polyacrylamide Gel Electrophoresis	53
Determination of the 50 % Inhibitory Concentration (IC₅₀)	54
Effect of IC₅₀@24h on the Growth of MCF-7 Cancer Cells	64
The Morphological studies	81
The Flow Cytometric Analyses	90
Cell Cycle Analysis	90
Determination of Caspase-3/7 concentration	95
Determination of Apoptosis and Necrosis Induction	99
Determination of the Median Lethal Dose (LD₅₀)	105
Mortality Rates	108
Discussion	110

Summary & conclusion	134
References	139
Arabic summary	

LIST OF ABBREVIATIONS

APS	Ammonium persulphate
Asp-49	Aspartic acid-49
A549	Human alveolar adenocarcinoma
Batrox LAAO	<i>Bothrops atrox</i> L-amino acid oxidase fraction
Bax	Bcl-2-associated X protein
Bcl-2	B-cell lymphoma 2
BD FACS	Becton Deckinson fluorescence-activated cell sorting
BIL	<i>Bothrops leucurus</i> lectin
Bis	Bis acrylamide
BnSP-6	<i>Bothrops pauloensis</i> phospholipase A₂ fraction
Bp-LAAO	<i>Bothrops pauloensis</i> L-amino acid oxidase fraction
BrdU	Bromodeoxy uridine
CaCo 2	Colorectal adenocarcinoma
Caspase 3/7	Cysteine-aspartic proteases-3/7
CC-PLA₂	<i>Cerastes cerastes</i> phospholipase A₂
CDK 2	Cyclin dependent kinase 2
CDK 4	Cyclin dependent kinase 4
cIAP2	Baculoviral IAP repeat-containing protein 3 inhibitor of apoptosis
Cis	Cisplatin
Colo 205	Colon adenocarcinoma
Cox-2	Cyclooxygenase-2
cPLA₂	Cytosolic phospholipase A₂
CR-LAAO	<i>Calloselasma rhodostoma</i> L- amino acid oxidase
CV	Crude venom
df	Degree of freedom
DMSO	Dimethyl sulphoxide
Doxo	Doxorubicin
DTT	Dithiothreitol
DU145	Prostate cancer cell line
EAT	Ehrlich ascites tumor cells
Eca-109	Oesophageal carcinoma
EL	Exposure level
E2	Estradiol

FITC	Fluorescein isothiocyanate
FL2A	Fluorescent light area
GNP	Gold nanoparticles
GNP-NKCT1	Gold nanoparticles conjugated to <i>Naja kaouthia</i> protein fraction
G0 phase	Gap 0 phase
G1 phase	Gap 1 phase
G2 phase	Gap 2 phase
HaCat	Immortal keratinocyte cell line
HEK	Human embryonic kidney cell line
HeLa cells	Cervical carcinoma
HepG2	Liver carcinoma
HUTU	Duodenum adenocarcinoma
H₂O₂	Hydrogen peroxide
IC₅₀	The half maximal inhibitory concentration
iNOS	Inducible nitric oxide synthase
I.P.	Intraperitoneal
I.V.	Intravenous
LAAO cdt	L-amino acid oxidase from <i>Crotalus durissus terrificus</i>
LDH	Lactate dehydrogenase
LD₅₀	The median lethal dose
LL-24	Normal lung fibroblast
Lm LAAO	<i>Lachesis muta</i> L–amino acid oxidase fraction
LNCap	Androgen-sensitive human prostate adenocarcinoma
M	Mitosis
MCF-7	Michigan cancer foundation-7 (breast adenocarcinoma)
MCF-10	Normal breast epithelial cells
MDA-MB-231	Breast adenocarcinoma
MDA-MB-436	Breast adenocarcinoma
MKN-45	Stomach adenocarcinoma
MLO	<i>Microvipera lebetina obtusa</i>
mPANC96	Human pancreatic adenocarcinoma
MS	Mean of squares
MTS	3-(4,5-dimethylthiazol-2-yl)-5-(3-

	carboxymethoxyphenyl)-2-(4-sulphophenyl)-2H-tetrazolium)
MTT	3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyl-tetrazolium bromide
NCI-H460	Lung cancer cells
NFκβ	Nuclear factor kappa β
NKCT1	<i>Naja kaouthia</i> protein fraction
OH-LAAO	<i>Ophiophagus hannah</i> L–amino acid oxidase fraction
P	Percentage of change
PBS	Phosphate buffer saline
PC-3	Prostate cancer cells
PC-12	Pheochromocytoma from rat adrenal gland
PLA₂	Phospholipase A₂
PRDX6	Peroxiredoxin 6
p15	Tumor suppressor protein 15
p17	HIV-1 matrix protein
p21	Cyclin dependent kinase inhibitor
p53	Tumor suppressor protein 53
RKO	Colorectal adenocarcinoma
RPMI	Roswell park memorial institute (a medium used in cell culture)
S phase	Synthesis phase
SDS	Sodium dodecyl sulphate
SDS-PAGE	Sodium dodecyl sulphate-polyacrylamide gel electrophoresis
SEM	Standard error of mean
SK-BR-3	Breast cancer adenocarcinoma
SS	Sum of squares
SVT	Snake venom toxin
S-180	Murine sarcoma cell line
T	Exposure time
TAM	Tamoxifen
TβRII	Transforming growth factor beta receptor II
T*EL	Interaction between Exposure time and Exposure level
TEMED	Tetramethylethylenediamine

TGF-β	Transforming growth factor beta
TSGH-8301	Human bladder cancer cells
TSV-DM	<i>Trimeresurus stejnegeri</i> metalloproteinase fraction
U87MG	Human primary glioblastoma cell line
VERO	African green monkey kidney cell
XIAP	X-linked inhibitor of apoptosis protein
3T3 cells	Standard fibroblast cell line

LIST OF TABLES

TableNo.	Title	Page
(1)	Kruskal-Wallis distribution analysis to test the effect of exposure to crude venom and its fractions F1, F2, F3 as well as their subfractions F1A, F1B, F2A and F2B on the inhibitory concentration percentages at 24 hours (IC_S@24h) to the growth of MCF-7 cancer cells <i>in vitro</i>.	58
(2)	Kruskal-Wallis distribution analysis to test the effects of exposure to the cisplatin, doxorubicin and crude venom on the inhibitory concentration percentages at 24 hours (IC_S@24h) to the growth of MCF-7 cancer cells <i>in vitro</i>.	59
(3)	The inhibitory concentration percentages at 24 hours (IC_S@24h) of the crude venom (CV), cisplatin (Cis) and the doxorubicin (Doxo) to the growth of MCF-7 cancer cells <i>in vitro</i>.	59
(4)	The inhibitory concentration percentages at 24 hours (IC_S@24h) of the crude venom (CV) and its fractions (F1, F2 and F3) as well as the subfractions (F1A, F1B, F2A and F2B) to the growth of MCF-7 cancer cells <i>in vitro</i>.	60
(5)	Table (5): The inhibitory concentration percentages at 24 hours (IC_S@24h) of cisplatin	62