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LIST of ABBREEVIATIONS

ANOVA	:	Analysis of variance
ACEI	:	Angiotensin converting enzyme inhibitors
AT1	:	Angiotensin receptor one
BUN	:	Blood Urea Nitrogen
B.wt.	:	Body weight
BPF	:	bradykinin potentiating factor
CAT	:	Catalase
COX	:	Cyclooxygenase
Cu	:	Copper
DNA	:	Deoxyribonucleic acid
DT/ha	:	Dection per hectare
EDTA	:	Ethylene Diamine Tetra Acetic Acid
EGF	:	Epidermal growth factor
ELIZA	:	Enzyme-linked immunosorbent assay
GPx	:	Glutathione peroxidase
GSH	:	Reduced Glutathione
GFR	:	Glomerular Filtration Rate
H&E	:	Hematoxyline and Eosine
KU/L	:	Kilounits/liter
L.S.D	:	Least significance difference
MDA	:	Malondialdehyde
mol/L	:	Mol per liter
mu/ml	:	Milliunits/ milliliter
Mμ	:	Micromole
nm	:	Nanometer
ng/ml	:	Nanograms per millilitre.
nmoL/gram	:	Nanomol per grams
NO	:	Nitric oxide
NRC	:	National Research Council
NSAIDS	:	Non steroidal anti-inflammatory drugs
pg/ml	:	Picograms per millilitre.
Pbs	:	Phosphate buffer saline
Pt	:	Photoelectrocatalytic oxidation
P_X	:	Peroxidase
r.p.m	:	Revolution per minute

Rt-PCR	:	Reverse transcriptase-Polymerase chain Reaction
RNA	:	Ribo Nucleic Acid
ROS	:	Reactive oxygen species
SOD	:	Superoxide Dismutase
UL	:	Microlitre
VEGF	:	Vascular endothelial growth factor
µL	:	Microliter
µmol/L	:	Micromol per liter

College	**Veterinary Medicine**	Department	**Biochemistry and Chemistry of Nutrition**	Call no.	
Author	**Shaimaa Ahmed Ibrahim Moustafa Safan**	Degree	**Doctor Philosophy**	Date	**2017**
Title	**Protective Effect of Some Renin Inhibitors in Acute Nephro Toxicity Induced by Some Anti-Carcinogenic Drugs in Rats**				

Dissertation Abstract

This study examined the captopril; an ACEI could have a protective effect against cisplatin-induced nephrotoxicity. This reflects the beneficial role of captopril in treatment of renovascular hypertention and congestive heart failure; an effect that may be related to its free radicals scavenging and antioxidant effects which are sulfhydryl dependent. and tries to decrease the undesirable changes of tumor protein p53. Forty male Sprague Dawely rats weighting 200g to 250g were used in this study. The obtained results revealed that, Administration of 7.5mg/kg b. cisplatin intraperitoneally in normal rats caused a significant reduction in whole blood GSH concentration from 54.85 ± 0.82 mg/dl to 23.99±0.78mg /dl compared to normal rats. Administration of 60 mg/kg b. wt of captopril intraperitoneally in normal rats caused a significant increase in whole blood GSH concentration to 66.01± 0.99 mg/dl compared to normal rats, while in cisplatin -treated rats, Administration of 60 mg/kg b. wt of captopril intraperitoneally caused a highly significant increase in whole blood GSH concentration to 37.8± 0.97mg/dl compared to cisplatin treated rats. There was a positive correlation between serum angiotensin, aldosterone, blood urea nitrogen, creatinine, malondialdhyde, kidney malondialdhyde, blood tumor protein p53and kidney tumor protein p53 On the other hand, there is appositive correlation between GPx, SOD, reduced glutathione, catalase activities and renin In addition to that there was a negative correlation between blood tumor protein p53and kidney tumor protein p53 and GPx, SOD, reduced glutathione, catalase activities and renin While there was a negative correlation between serum angiotensin, aldosterone, blood urea nitrogen, creatinine, malondialdhyde, kidney malondialdhyde and GPx, SOD, reduced glutathione, catalase activities and renin.In normal rats, administration of 7.5mg/kg b. wt cisplatin caused a significant increase in serum creatinine ,serum blood urea nitrogen, serum angiotensin II , serum aldosterone serum MDA, MDA in kidney tissues in normal rats Also, administration of cisplatin caused a significant increase in whole blood tumor protein p53 and kidney blood tumor protein p53 in normal rats.On the other hand, administration of cisplatin caused a significant reduction in the whole blood GSH concentration, serum glutathione perioxidase, serum catalase and serum renin.60 mg/kg b. wt of captopril treatment caused a non-significant decrease in serum creatinine, serum blood urea nitrogen in normal rats and significant decrease in serum creatinine, serum blood urea nitrogen in cisplatin-treated rats while captopril administration caused highly significant decrease in serum angiotensin II, serum aldosterone in normal rats and in cisplatin-treated rats. On the other hand, administration of captopril caused a significant increase in the whole blood GSH concentration, Serum Glutathione perioxidase, serum catalase and serum renin in normal rats and in cisplatin treated rats. Also, captopril treatment caused a significant reduction in serum MDA**,** MDA in kidney tissues in normal rats and in cisplatin treated rats.It could be concluded that Administration of captopril reverse the un desirable effect of cisplatin especially in remedy of acute nephrotoxicity in rats through decrease the level of angiotensin II , aldosterone and the p53 gene expression.

Key Words (not more than 10)

Acute Nephro Toxicity – cisplatin - captopril – renin - angiotensin II , aldosterone -p53