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Protective Role of Some Traditional Herbs on Trichloroacetic Acid Induced-Toxicity in Experimental Animals

*Thesis Submitted for PhD Degree in Science
In Biochemistry and Nutrition*

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Aim of the work

The study was planned to investigate the effect of sage leaves and fennel seeds water extracts when administered each alone or in a combination on the amelioration of the toxic effects induced by trichloroacetic acid (TCA) in rats and to evaluate the protective effect of sage and fennel on the biochemical and histopathological changes in rats.

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List of abbreviations

ACP	Acid phosphatase
ALP	Alkaline phosphatase
ALT	Alanine aminotransferase
Aβ	Amyloid β
AST	Aspartate aminotransferase
BHT	Butylated hydroxytoluene
CA	Chromosomal aberration
CAT	Catalase
CCl₄	Carbon tetrachloride
CP	Cyclophosphamide
CPK	Creatine phosphokinase
CYP	Cytochrome P450
DCA	Dichloroacetic acid
DTNB	5, 5-dithiobis -2-nitrobenzoic acid
EDTA	Ethylene diaminetetraacetic acid
EPA	Environmental protection agency
EO	Essential oil
ESR	Electron spin resonance
FEO	<i>Foeniculum vulgare</i> (fennel) essential oil
FER	Feed efficiency ratio
FVE	<i>foeniculum vulgare</i>

GSH	Reduced glutathione
GSSG	Oxidized glutathione
GR	glutathione reductase
HDL-C	High density lipoprotein-cholesterol
HE	Hydroalcoholic extract
H₂O₂	Hydrogen peroxide
LDH	Lactate dehydrogenase
LDL-C	Low-density lipoprotein cholesterol
MCA	Monochloroacetic acid
MDA	Malondialdehyde
5-MoP	5-methoxypsoralen
O₂	Molecular oxygen
O₂^{•-}	Superoxide anion radical
OH[•]	Hydroxyl radical
ORAC	Oxygen radical absorbance capacity
PCEs	Polychromatic erythrocytes
PCOS	Polycystic ovary syndrome
ROS	Reactive oxygen species
SO	<i>Salvia officinalis</i>
SOD	Superoxide dismutase
TAG	Triacylglycerols
TBA	Tertiary butyl alcohol
TBARS	Thiobarbituric acid reactive substance

TC	Total cholesterol
TCA	Trichloroacetic acid
TCE	Trichloroethylene
TOC	Total organic carbon
UNEP	United Nations Environment Programme
VLDL-C	Very low-density lipoprotein cholesterol

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