GLUTATHIONE AND ASSOCIATED ANTIOXIDANT SYSTEM IN PROTEIN ENERGY MALNUTRITION IN CHILDREN

Thesis

Submitted for partial fulfillment of Master Degree in

Pediatrics

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To my Parents ...

With all love and gratitude

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List of Contents

	Page
List of Abbreviations	*i*
List of Tables	*ii*
List of Figures	*iii*
Introduction and Aim of the Work	*1*
Review of Literature	
• Protein Energy Malnutrition	*2*
• Oxygen Free Radicals and Tissue Injury	*40*
• Glutathione System	*64*
Subjects and Methods	*72*
Results	*80*
Discussion	*104*
Conclusion and Recommendations	*114*
Summary	*115*
References	*117*
Arabic Summary	

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List of Abbreviations

ADH	Antidiuretic hormone.
C_3	Complement 3
Cu	Cupper.
DIC	Disiminated intravascular coagulopathy.
Fe^{2+}	Ferrous.
Fe^{3+}	Ferric.
Gp	Glutathione peroxidase.
GR	Glutathione reductase
GSH	Reduced glutathione.
GSS G	Oxidized glutathione.
H_2O_2	Hydrogen peroxide.
HDL	High density lipoprotein.
IL-1	Interleukin-1.
Kwo	Kwashiorkor.
MKwo	Marasmic Kwashiorkor.
Mn	Manganese.
$O^{\bullet}_2$	Superoxide.
$OH^{\bullet}$	Hydroxyl radical.
PEM	Protein energy malnutrition.
PGE_2	Prostaglandin E_2
ROS	Reactive oxygen species.
SOD	Superoxide dismutase.
TPN	Total parentral nutrition.
Zn	Zinc.

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List of Tables

		Page
Table 1:	*Gomez classification of PEM*	*17*
Table 2:	*Wellcome classification of PEM*	*17*
Table 3:	*Scoring system for severe PEM*	*18*
Table 4:	*Scoring system for severe PEM*	*18*
Table 5:	*Stages of metabolic adaptation in PEM*	*23*
Table 6:	*Salient features of severe PEM*	*31*
Table 7:	*Human antioxidants, their mode of action*	*54*
Table 8:	*Laboratory data of the controls and the patients groups*	*82*
Table 9:	*Comparison between GP and GR in the controls and the patients groups.*	*84*
Table 10:	*GP and GR activities in relation to sex.*	*85*
Table 11:	*GP and GR activities in relation to the type of feeding.*	*87*
Table 12:	*Comparison between GP and GR in Kwo infants in relation to presence of hepatomegaly.*	*90*
Table 13:	*GP sensitivity and specificity and predictive value in PEM infants and the controls.*	*91*
Table 14:	*GP sensitivity and specificity and predictive value in marasmic and Kwo infants.*	*92*
Table 15:	*GR sensitivity and specificity and predictive value in PEM infants and the controls.*	*94*
Table 16:	*GR sensitivity and specificity and predictive value in marasmic and Kwo infants.*	*95*

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List of Figures

		Page
Figure 1:	*Evolution of marasmus.*	*11*
Figure 2:	*Evolution of Kwashiorkor.*	*12*
Figure 3:	*Pathogenesis of oedema in Kwashiorkor.*	*16*
Figure 4:	*Endocrine adaptive function in PEM.*	*21*
Figure 5:	*Breakdown of endocrine adjustment leading to features of Kwo.*	*22*
Figure 6:	*Summary of mechanisms of free radicals in pathological states.*	*44*
Figure 7:	*Causes and consequences of tissue damage.*	*45*
Figure 8:	*Synthesis of glutathione.*	*65*
Figure 9:	*Glutathione productive mechanisms of radical damage.*	*67*
Figure 10:	*Glutathione antioxidant enzymes.*	*69*
Figure 11:	*GP levels in relation to the presence of infection in the studied groups.*	*88*
Figure 12:	*GR activity in relation to the presence of infection in the studied groups.*	*89*
Figure 13:	*Cut-off levels for GP and specificity and sensitivity of GP test.*	*93*
Figure 14:	*Cut-off levels for GR and specificity and sensitivity of GR test.*	*96*
Figure 15:	*Correlation between GP and Hb in marasmic infants.*	*97*
Figure 16:	*Correlation between GP and Hb in Kwo infants.*	*98*
Figure 17:	*Correlation between GR and serum albumin in PEM infants.*	*99*
Figure 18:	*Correlation between GR/g Hb and Hb in PEM infants.*	*100*
Figure 19:	*Correlation between GR/g Hb and Ht in PEM infants.*	*101*
Figure 20:	*Correlation between GR/g Hb and MCV in PEM infants.*	*102*
Figure 21:	*Correlation between GR/g Hb and MCH in PEM infants.*	*103*

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INTRODUCTION & AIM OF THE WORK

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Introduction:

Marasmus and kwashiorkor are manifestations of protein energy malnutrition. The pathophysiology of these disorders is poorly understood ***(Sive et al., 1993).***

Kwo may occur when an imbalance between pro- and anti-oxidants in malnourished children results in an excess of free radicals ***(Becker et al., 1995).***

Aim of the work:

The aim of the present study is to investigate the disturbance in oxidant antioxidant balance in PEM by measuring the serum levels of glutathione peroxidase (GP) and glutathione reductase (GR) enzymes in infants suffering from marasmus and kwashiorkor.

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