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التوثيق الالكتروني والميكروفيلم



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**STUDY OF HEALTH DISORDERS AMONG
WORKERS IN A WATER BASED PAINTS
FACTORY IN SADAT CITY
(MENOUIYA GOVERNORATE)**

A Thesis Submitted in Partial Fulfilment for Master Degree (M.Sc)

in Industrial Medicine and Occupational Health

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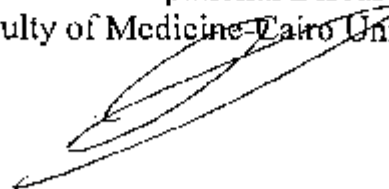
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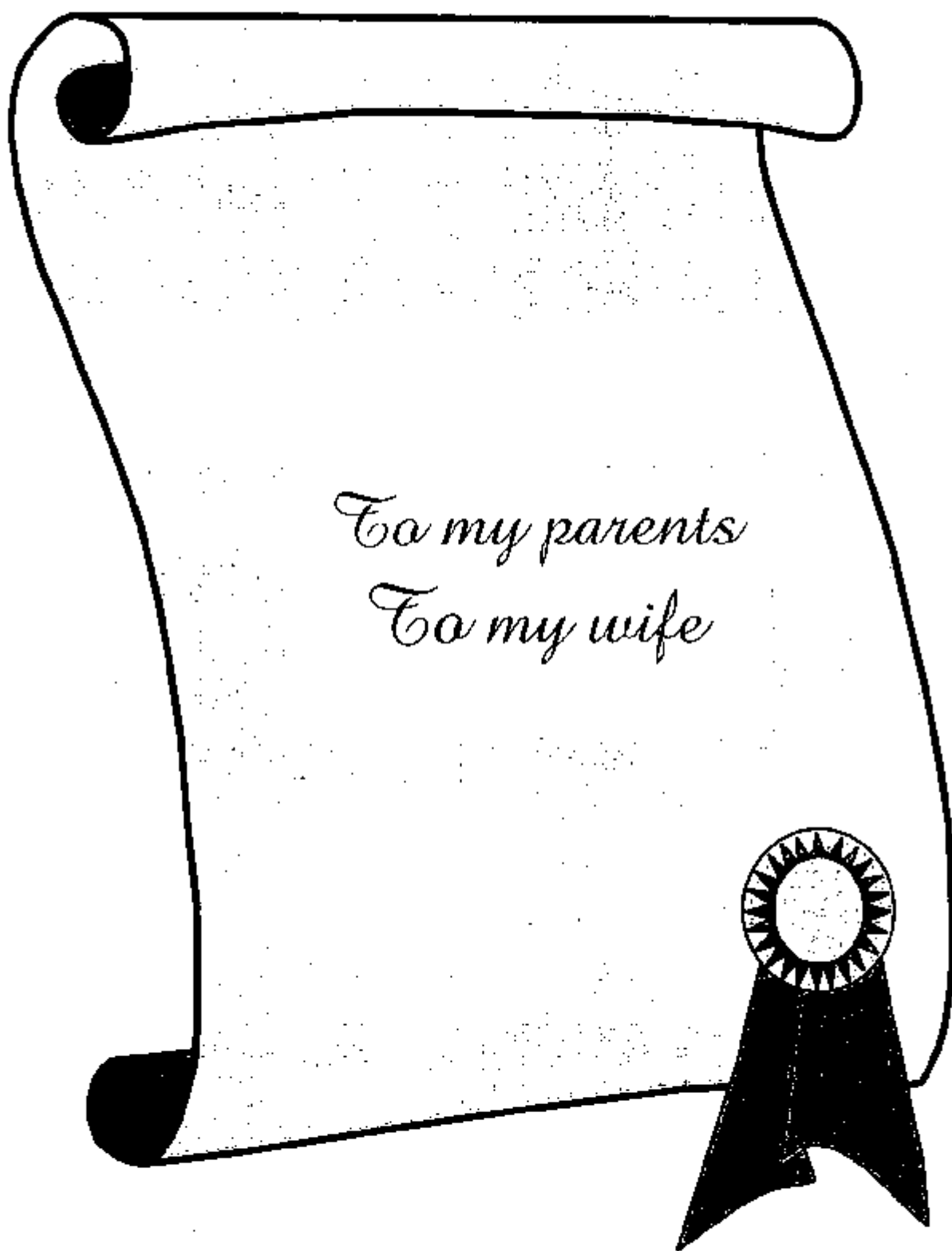
بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

"ربنا انقذ لي ولوالدي وللمؤمنين يوم

يقوم الحساب" ﴿٤١﴾

صدق الله العظيم

سورة إبراهيم الآية (٤١)



To my parents
To my wife

ACKNOWLEDGEMENT

First to all, thank to **GOD**, for enabling me to finish this work

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I owe my thanks to all workers in the studied factory for their cooperation.

List of abbreviations

ACD	Allergic contact dermatitis
ADP	Acrylic dispersion paints
ALT	Alanine transaminase
AST	Aspartate transaminase
CBC	Complete Blood Count
CD	Contact dermatitis
FEF	Forced expiratory flow
FEV1	Forced expiratory volume in the 1 st second
FVC	Forced vital capacity
HLA	Human leukocyte antigen
ICD	Irritant contact dermatitis
IgE	Immuno globulin E
IgG	Immuno globulin G
LMWC	Low molecular weight reactive compound
MEK	Methyl ethyl ketone
PEFR	Peak expiratory flow rate
PPE	Personal protective equipment
TDI	Toluene diisocyanate
TIF	Time Intensity Factor
VC	Vital capacity
VOCs	Volatile organic compounds
WCP	Water- based construction paints
WHO	World Health Organization

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Introduction

INTRODUCTION

Paints and coatings include varnishes, lacquers, stains and printing inks (*McCann et al., 1998*).

In the last few decades, paint industry started to develop new types of paints "water-based paints" to replace "solvent-based ones" which contain large amounts of solvents. Water-based paints involve an emulsion of acrylic resin, stabilizers (c.g ammonia) and preservatives (c.g. formaldehyde) in water (*Wieslander et al., 1994*).

In water based paints, workers could develop contact sensitization due to resin (*Whittington, 1981*), eye, nose and throat irritation (*Bender et al., 1983*), upper respiratory tract irritation and reversible reduction in pulmonary function measurements (*Horvath et al., 1988*).

To the best of my knowledge, no researches were done in Egypt concerning health disorders for workers in water based paints factories. For this reason we intend to investigate the expected health disorders which might be encountered among workers in this industry.