# CRYOGLOBULINS IN MYXOEDEMA

Thesis Submitted for the Partial Fulfillment of the Master Degree in General Medicine

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# Acknowledgment

First of all, I would like to express my greatest respect and gratitude to Prof. Dr. Moatasem Salah Amer, Prof. of Internal Medicine. Ain Shams University for his kind supervision and continuous support during this work.

My cordial thanks to Prof. Dr. Mohsen Maher. Prof. of Internal Medicine. Ain Shams University for his meticulous supervision and encouragement which had been of great value to complete this work.

Last but not least. I would like to express my gratitude to Dr. Mona Mohamed Zaki, Lecturer of Clinical Pathology, Ain Shams University, who saved no effort or time in helping me to complete this work and revision of its most fine details.

Ayman Melad

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## List of Abbreviations

MIT: Monoiodotyrosine

DIT: Diiodotyrosine

T4: Throxine

T3: Triiodothyronine

TSH: Thyroid stimulating hormone

TBPA: Thyroxine binding prealbumin

TBG: Thyroxine binding globulin

CAMP: Cyclic 3'-5' adenosine monophosphate

TRH: Thyroid releasing hormone

TSH RAB: Thyroid stimulating hormone receptor antibodies

rT3: Reverse T3

FT4: Free T4

FT4I: Free T4 index

HLA: Human leucocytic antigen

TSI'P: Thyroid stimulating immunoglobulins

PBI: Protein bound iodine

TBP: Thyroxine binding protein

RIA: Radioimmunoassay

IRMA: Immunoradiometric assay

FTI: Free thyroxine index

LDH: Lactic dehydrogenase

CPK: Creatinine phosphokinase

NTI: Non-thyroidal illness

IgM: Immunoglobulin M

lgG: Immunoglobulin G

PFN: Plasma fibronectin

Igs: Immunoglobulins

RF: Rheumatoid factor

ICs: Immunocomplexes

IL-1: Interleukin 1

MC: Mixed cryoglobulinemia

HCV: Hepatitis C virus

ELISA: Enzyme linked immunosorbant assay

RIBA: Recombinant immunoblot assay

HCV Ab: Hepatitis C virus antibodies

HCV Ag: Hepatitis C virus antigen

EMC: Essential mixed cryoglobulinemia

ANA: Antinuclear antibody

Ag/Ab: Antigen antibody ratio

LPI: Laminin fragment

XPD: Cross linked fibrin degradation products

DIC: Disseminated intravenous coagulopathy

PE: Plasma exchange

CPP: Cryoprecipitable proteins

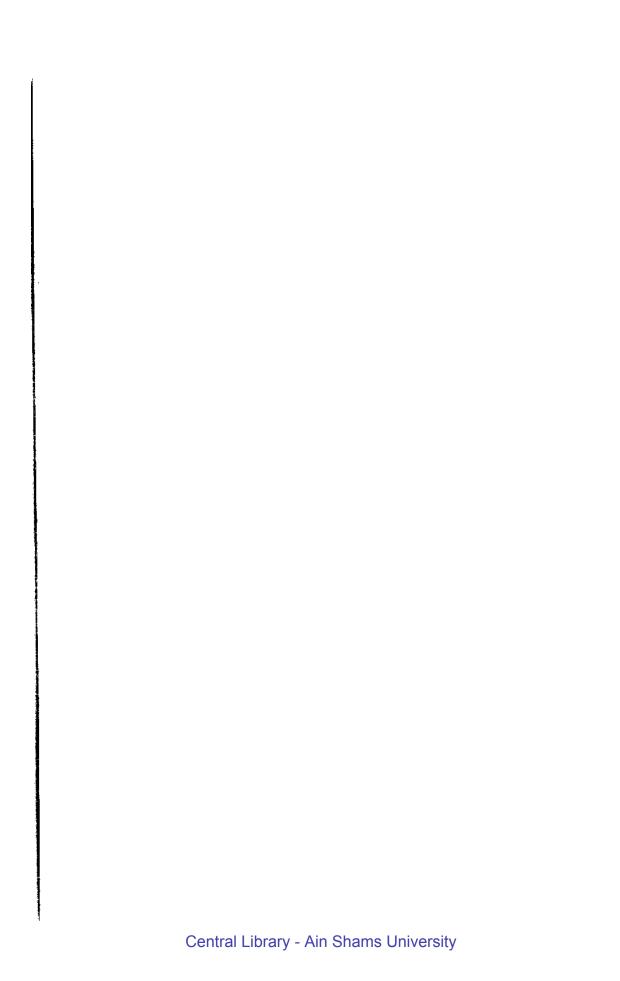
CIC: Circulating immune complexe

INF: Interferon

#### Errata

Page	Line	Mistake	Correct
4	1	lymphoproliferative	lymphoproliferative,
4	24	C3	С3,
9	5	bidnng	binding
15	8	with between	between
15	8	documented	document
17	14	cold	cold,
26	4	Alpha Interferon	4- Alpha Interferon
30	9	Shealth	Sheath
32	11	celle	cell
33	20	thyroxin	thyroxine
48	16	normal	normal,
50	16	RAIU	radioactive iodine uptake
64	12	abou	about
65	18	Triiodothronine	Triiodothyroxine
68	9	presnce	presence
73	3	immunoiradiometric	immunoradiometric
77	19	a euthyroid	an euthyroid
79	1	mant	many
107	10_	hashimoto's	Hashimoto's
113	12	Textbbok	Textbook
120	17	Imunopathology	Immunopathology

# INTRODUCTION AND AIM OF THE WORK



#### INTRODUCTION

Cryoglobulins are proteins that precipitate when cooled and dissolve when heated. Cryoglobulins may be classified as follows: Type I (monoclonal-IgG, IgM, IgA). Type II (mixed- two or more immunoglobulins) and type III (polyclonal) (Tissot et al., 1994). All types may be responsible for specific symptoms that occur as a result of changes in the cryoglobulin induced by exposure to cold. The symptoms include Raynaud's phenomenon, bleeding tendencies and cold induced urticaria. Autoimmune and infectious diseases are usually associated with mixed cryoglobulinemia (type II, III) (Bekavac et al., 1994).

Myxoedema is accumulation of mucopoly-saccharide substances in subcutaneous tissues. It is more common in females, the most common causes of myxoedema are atrophic autoimmune and Hashimoto's thyroiditis. Milder symptoms are more common as dry thick skin, deep voice, weight gain, cold intolerance and constipation (Wartofsky and Ingbar, 1991).

There were no previous studies for the relation between cryoglobulins and myxoedema.

#### Aim of the work:

To assess the occurrence of cryoglobulinemia with myxoedema and its diagnostic role.