Contents

List of Abbreviations

^{131}I : Radioactive iodine

AIDS : Acquired immunodeficiency syndrome

AIT : Amiodarone-induced thyrotoxicosis

APACHEII: Acute Physiology and Chronic Health Evaluation II

ATP : Adenosine 5′-triphosphate

CKD : Chronic kidney disease

CNS : Central nervous system

CRP : C-reactive protein

CVD : Cardio-vascular disease

DIT : Diiodotyrosine

FT3 : Serum free triiodothyronine

FT4 : Serum free thyroxine

FTI : Free T4 index

GFR : Glomerular filtration rate

GH : Growth hormone

HPT : Hypothalamus–pituitary–thyroid

HR : Heart rate

hsCRP : Highly sensitive C-reactive protein

I : Iodine

ICU : Intensive care unit

IDI : Integrated discrimination improvement

IL : Interleukin

LDL : Low density lipoprotein

MCT : Monocarboxylate transporter

MIT : Monoiodotyrosine

MMI : Methimazole

MNG : Multinodular goiter

MV : Mechanical ventilation

NEFA : Non-esterified fatty acids

NIS : Sodium/iodide symporter

NRI : Net reclassification improvement

NSAIDs : Non-steroidal anti-inflammatory medicines

NTIS : Non thyroidal illness syndrome

NT-pro BNP:N-terminal-pro brain natruretic peptide

PTU : Propylthiouracil

RAIU : Radioactive Iodine Uptake

RCT : Randomized control trial

rT3 : Reverse T3

Rt3 : Serum reverse triiodothyronine

SBP : Systolic blood pressure

SC : Subclinical thyroid

T2 : Diiodothyronine

T3 : Triiodothyronine

T4 : Thyroxin

TBG : Thyroxine-binding globulin

TBPA : Thyroxine-binding prealbumin

TFTs : Thyroid function tests

TG : Thyroglobulin

TgAb : Thyrogloulin antibody

TH : Thyroid hormones

TNF : Tumor necrosis factor

TPO : Thyroidal peroxidase

TPOAb : Thyroid peroxidase antibody

TRH : Thyrotropin-releasing hormone

TRHtest : Thyrotropin releasing hormone test

TSH : Thyroid-stimulating hormone

TT3 : Serum total triiodothyronine

TT4 : Serum total thyroxine

TTR : Serum transthyretin

UIC : Urinary Iodine Concentration

List of Figures

List of Tables

Introduction

Chapter (I)

Assessment of Thyroid Function

Chapter (II)

Effect of Medications on Thyroid Functions

Chapter (III)

Role of Thyroid Functions in Critically Ill Patients

Chapter (IV)

Treatment of Thyroid Disorders in Critically Ill Patients

Summary

References

Arabic Summary

Effect of Altered Thyroid Function on Critically Ill Patients

Essay

Submitted for Partial Fulfillment of Master Degree
in Intensive Care

By

Bahaa El Din Hassan Helal
M.B., B.Ch.

Under Supervision of

Prof. Dr. Hala Goma Salama
Professor of Anesthesiology and Intensive Care
Faculty of Medicine, Ain Shams University

Dr. Hanaa Mohamed Abd Allah El- Gendy
Assistant Professor of Anesthesiology and Intensive Care
Faculty of Medicine, Ain Shams University

Dr. Raham Hasan Mostafa
Lecturer of Anesthesiology and Intensive Care
Faculty of Medicine, Ain Shams University

Faculty of Medicine
Ain Shams University
(2016)