

BIOCHEMICAL STUDIES ON RENAL FAILURE AND ITS RELATION TO SOME HORMONES

A THESIS

Submitted in Partial Fulfillment for the Requirement of
Master Degree in Biochemistry

By

Mohamed El-Sayed Hafiz
BSc, Science (1989)

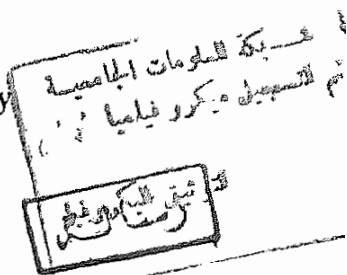
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Prof. Dr. Moustafa Abdallah Shousha
Professor of biochemistry
Atomic Energy Authority



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Dedicated to
My daughter

SALMA

for making everything worthwhile

I declare that this thesis has been composed by myself and the work of which it is a record has been done by myself. It has not been submitted for a degree at this or any other university.

Mohamed El-Syed Hafiz

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ABSTRACT

**MOHAMED EL-SAYED HAFIZ EL-SAEID.
BIOCHEMICAL STUDIES ON CHRONIC RENAL FAILURE
AND ITS RELATION TO SOME HORMONES.
BIOCHEMISTRY DEP.-FACULTY OF SCIENCE-AIN SHAMS
UNIVERSITY.**

Using assays that employ the antibody coated tubes technique, Thyroid hormone levels were measured in 35 patients with chronic renal failure on regular haemodialysis for a mean period of 20.3 ± 8.7 months. The findings were compared to those of 15 healthy controls. All patients were clinically euthyroid. The mean value of total thyroxine (T4), total triiodothyronine (T3), free thyroxine (FT4) and the free triiodothyronine (FT3) were low in patients compared with controls ($P < 0.001$). The mean basal thyroid stimulating hormone (TSH) levels were significantly higher in patients than in controls ($P < 0.05$). Although all patients were clinically euthyroid, the biochemical features suggest hypothyroidism



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M.E.Hafiz
1996



LIST OF ABBREVIATIONS

- ADH	Antidiuretic hormone.
- ATP	Adenosine tri-phosphate.
- BMR	Basal metabolic rate.
- CAPD	Continuous ambulatory peritoneal dialysis.
- Chol	Cholesterol.
- CPM	Counts per minute.
- CRF	Chronic renal failure.
- DPC	Diagnostic product corporation.
- ESRD	End stage renal disease.
- FT3	Free triiodothyronine.
- FT4	Free tetraiodothyronine.
- GARGG	Goat anti-rabbit gamma globulin.
- GFR	Glomerular filtration rate.
- HD	Haemodialysis.
- HDL	High density lipoprotein.
- MB	Maximum binding.
- mRNA	Messenger ribonucleic acid.
- NADP	Nucleotide adenosine diphosphate.
- NSB	Non specific binding.
- NTI	Non thyroid illness.
- PEG	Polyethylene glycol.
- PTH	Parathyroid hormone
- RIA	Radioimmunoassay.
- rT3	reverse triiodothyronine.
- SD	Standard deviation.
- SE	Standard error.
- TBG	Thyroxine binding globulin.

