



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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MONA MAGHRABY

**STUDY OF RELATIONSHIP BETWEEN STOOL
LACTOBACILLUS ACIDOPHILUS AND GRAVE'S
DISEASE IN A SAMPLE OF EGYPTIAN
POPULATION**

Thesis

Submitted for partial fulfillment of Master Degree in Internal Medicine

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

لَسْبَدَانِكَ لَا عِلْمَ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

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LIST OF ABBREVIATIONS

Abb.	Full Term
BMI	body mass index
CTLA4	cytotoxic T-lymphocyte associated antigen 4
EMP	Embden Meyerhof Parnas
IQR	interquartile range
LAB	lactic acid bacteria
MMI	methimazole
PCR	polymerase chain reaction
PTU	propylthiouracil
RAI	radioactive iodine
T3	triiodothyronine
T4	thyroxine
TNF	tumor necrosis factor
TPO	thyroid peroxidase
TSH	thyroid stimulating hormone

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INTRODUCTION

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Graves' disease is an autoimmune disorder in which the thyroid is activated by antibodies to the thyrotropin receptor. The hyperthyroidism that develops is one of many somatic and psychiatric manifestations of the disease that can affect the quality and length of life. **(Terry et al., 2016)**

The annual incidence of the disease is about 20 to 50 cases per 100,000 persons. The incidence peaks between 30 and 50 years of age, but people can be affected at any age. The lifetime risk is 3% for women and 0.5% for men. **(Zimmermann et al., 2015)**

Unambiguous identification of the factors underlying Graves' disease has not yet been accomplished. Genetic and epigenetic determinants are leading candidates for these factors. Large-scale genetic analyses have identified several genes conferring susceptibility. These include genes encoding thyroglobulin, thyrotropin receptor, HLA-DR β -Arg74, the protein tyrosine phosphatase nonreceptor type 22 (PTPN22), cytotoxic T-lymphocyte-associated antigen 4 (CTLA4), CD25, and CD40. **(Limbach et al., 2016)**

Gut microbiota are trillions of bacterial strains per gram faeces. Their genome, also known as the microbiome,

contains a 100-fold greater number of genes than the human genome. (**Qin et al., 2010**)

Majority of which are obligate anaerobes. Every study reporting the human gut microbiota underlined its uniqueness as highly inter-individual specific. (**Arumugam et al., 2011**)

The intestinal microbiota play a key function in metabolism, absorption, immune functioning along with defense mechanism against pathogen. (**Kamada et al., 2013**) (**Walsh et al., 2014**)

The regulation of gut microbiota configuration has been compromised in a variety of disorders like inflammatory bowel disease, Crohn's disease, colitis, type II diabetes, Hashimoto's thyroiditis, and asthma. (**Ishaq et al., 2018**)