Genotypic heterogenicity among Carbapenem susceptible and Non-susceptible Acinetobacter baumannii in a multicenter study

Thesis

Submitted for the fulfillment of
The Master degree (M.Sc.) in
Clinical & Chemical pathology

presented by

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2008

بسم الله الرحمن الرحيم

Achnowledgment

*First of all, I would like to state my gratefullness and gratitude to **Allah** who floods his believers with blessings, faith and patience, to enable them to go on in life and continue their work.*

*I would like to express my gratitude to Professor Dr. **SOHAIR FATHY HELAL,** Professor of clinical & chemical pathology, Faculty of Medicine, Cairo University, for her unlimited guidance and fruitful discussion.*

*I am also gratefull to Dr. **MONA MOHIEDDEN,** Assistant professor of clinical & chemical pathology, Faculty of Medicine, Cairo University, for her great guidance and sincere help in this work.*

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Special thanks

Special thanks to my

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fulfilling this thesis.

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Abbreviation

Abstract

Members of the genus Acinetobacter are considered among the important microorganisms incriminated in causing nosocomial infections. This genus is faced with many problems, one of them is its natural ability for acquiring drug resistance genes and virulance factors, with the appearance of Acinetobacter spp. showing resistance to the carbapenems,
particularly imipenem.

The aim of this work is to etablish phenotypic methods for identification of A.baumannii in routine work, study the genomic diversity among carbapenem susceptible and non-susceptible A.baumannii by a molecular technique namely (rep-PCR) & to demonstrate its usefulness in source tracing of nosocomial outbreaks due to A.baumannii.

Results showed the high percentage of imipenem-resistance among Acinetobacter spp. (62%) & the presence of a predominant clone in Cairo university hospitals detected by Rep-PCR technique.

Keywords :

Acinetobacter spp.
Nosocomial outbreaks
Drug resistance genes
Imipenem-resistance
Rep-PCR technique

التنوع الجيني بين ميكروب اسينيتوباكتر بومانيي الحساسة و الغير حساسة للكاربابينيم فى دراسة في مراكز متعددة

رسالة مقدمة من

الطبيبة/ **ريم مصطفي محمد احمد**

بكالوريوس طب و جراحة

توطئة للحصول علي درجة الماجستير

في

الباثولوجيا الاكلينيكية و الكيميائية

كليه الطب جامعة القاهرة

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