بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

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بالرسالة صفحات لم ترد بالاصل

Study of Fungal Infections in Pediatric Oncology Patients

Thesis
Submitted for partial fulfillment of Master Degree
In Pediatrics

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بسم الله الرحمن الرحيم

﴿قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ﴾

سورة البقرة
آية رقم :(٣٢)

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The most beneficent and most merciful*

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LIST OF ABBREVIATIONS

ALL	Acute lymphoblastic leukemia
AMC	Absolute monocytic count
AML	Acute myeloid leukemia
ANC	Absolute neutrophil count
BAL	Bronchoalveolar lavage
CD	Cluster differentiation
CT	Computed tomography
DNA	Deoxyribose nucleic acid
EBV	Epstein-Barr virus
ECG	Electrocardiogram
e.g.	Exempli gratia (Latin= for example)
ESR	Erythrocyte sedimentation rate
FAB	French-American-British
FDA	Food and drug Administration
FN	Febrile neutropenia
FUO	Fever of unknown origin
G-CSF	Granulocyte-colony stimulating factor
GM-CSF	Granulocyte-macrophage colony stimulating factor
HD	Hodgkin disease
HIV	Human immunodeficiency virus
IgM	Immunoglobulin M
I.V.	Intravenous
NAC	Non-albicans Candida
NHL	Non-Hodgkin's Lymphoma
PCR	Polymerase chain reaction
PMN	Polymorphonuclear neutrophil
SNCCL	Small non-cleaved cell lymphoma
T.d.T.	Terminal deoxynucleotide transferase

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INTRODUCTION

INTRODUCTION

Infections are common and potentialy serious complications of cancer treatment. The most important risk factor for infection is an absolute neutrophil count less than 500 / mm^3, and its duration ***(Oude Nijhuis et al., 2005)***.

In the early 1970s, the introduction of empirical use of intravenous broad-spectrum antibiotics for febrile neutropenic patients reduced infection-related mortality significantly. Until recently, routine hospitalization for administration of intravenous broad-spectrum antibiotics is still standard care and the paradigm in most hospitals ***(Oude Nijhuis et al., 2005)***.

Oncology patients overall had a decreased mortality rate over time, likely attributable to advances in medical therapy in treating a variety of neoplasms. However, patients who acquired fungal infections did not experience a similar improvement in mortality. Although fungal infections themselves were not usually fatal events, they were associated with a 60% mortality rate in cancer patients ***(Rosen et al., 2005)***.

El-Mahallawy et al., (2002) studied fungal infections in children with cancer at the National Cancer Institute in Cairo. They found that 68% of infections were caused by Candida sp. and 18% by Aspergillus sp.

Fungal infections pose a serious risk to immunocompromised patients. Over the past decade, a significant rise in the number of new infections has been observed in this population ***(Groll et al., 1996)***. Although Candida remains the most common fungal pathogen in

oncology patients, the epidemiology has recently shifted toward non-albicans species ***(Moosa et al., 2002)***.

This change has been attributed to the widespread use of fluconazole prophylaxis ***Bodey et al., (2002)***; however, Aspergillus and uncommon molds have also seen a recent rise as pathogens identified in immunocompromised individuals ***(Perea et al., 2002)***.

The availability of newer therapeutic agents with improved efficacy, including immunomodulators, will be crucial in obtaining better control of infections due to fungal organisms ***(Anaissie et al., 1998; Boogaerts et al., 2001)***.