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بسم اللّه الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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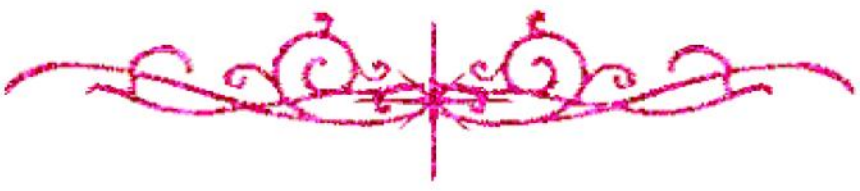

بالرسالة صفحات
لم ترد بالأصل

Usefulness of Carcinoembryonic Antigen (CEA) in Evaluating Response to Chemotherapy in Patients with Advanced Non-Small Cell Lung Cancer

Thesis

Submitted in Partial Fulfillment of Master Degree in Clinical Oncology and Nuclear Medicine

By

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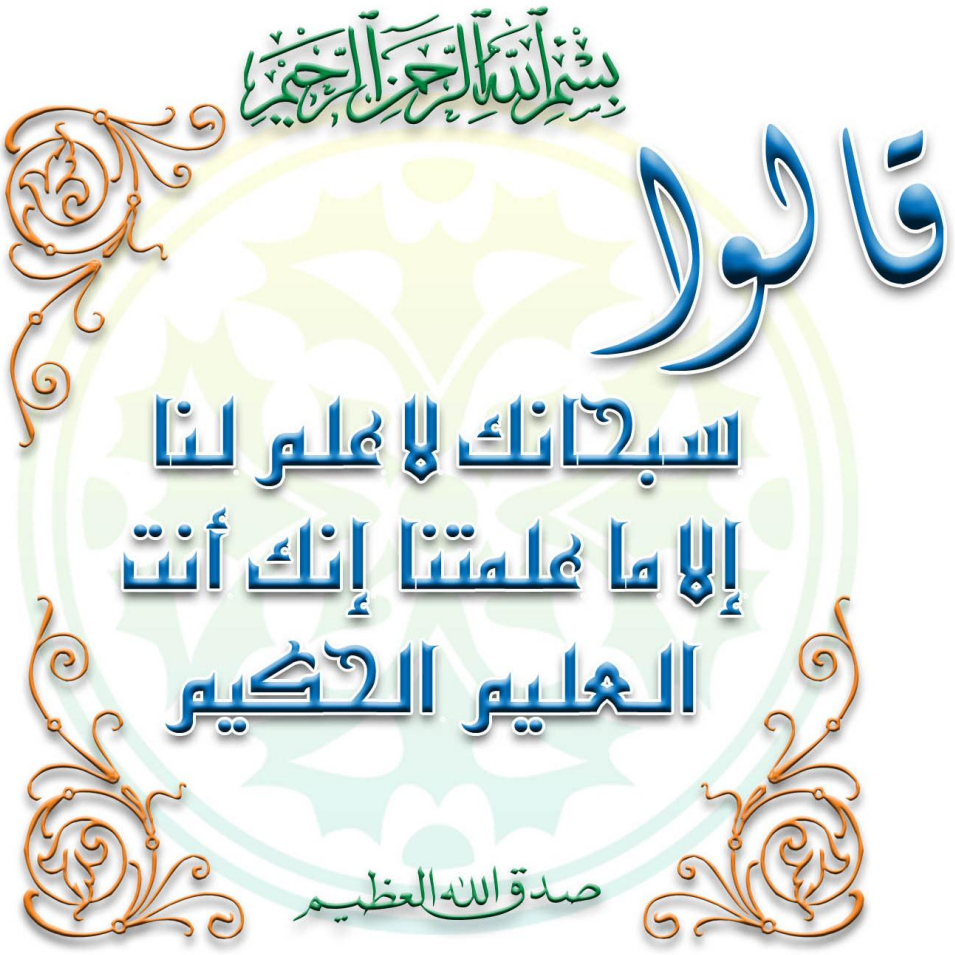

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Alaa Naguib

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List of Abbreviations

Abb.	Full term
AIS	*Adenocarcinoma in situ*
ALARA	*As low as reasonable achieved*
CA125	*Cancer antigen 125*
CEA	*Carcinoembryonic antigen*
CM	*Conventional mediastinoscopy*
CPS	*Combined positive score*
CR	*Complete response*
CT	*Computed tomography*
DFS	*Disease free survival*
DNA	*Deoxyribonucleic acid*
EBUS	*Endobronchial ultrasound*
ERCC1	*Excision repair cross-complementation*
IHC	*Immunohistochemistry*
IBR	*Imaging based response*
LDCT	*Low dose computed tomography*
MGS	*Modified glasgow score*
MIA	*Minimally invasive adenocarcinoma*
NER	*Nucleotide excision repair*
NLST	*National lung screening trial*
NOS	*Not otherwise specified*
NSCLC	*Non-small cell lung cancer*
NSE	*Neuron-specific enolase*
OR	*Objective response*
PD	*Progressive disease*
PD-1	*Programmed death-1*
PD-L1	*Programmed death ligand 1*
PR	*Partial response*
PSA	*Prostate specific antigen*
RECIST	*Response evaluation criteria in solid tumor*

List of Abbreviations (Cont...)

Abb.	Full term
ROC	*Receiver operator curve*
RRM1	*Ribonucleotide reductase messenger*
RT-PCR	*Reverse transcriptase polymerase chain reaction*
SCC	*Squamous cell carcinoma*
SD	*Stable disease*
SHS	*Second hand smoke*
SLD	*Sum of longest diameter*
SPN	*Solitary pulmonary nodules*
SUV	*Standardized uptake value*
SVCO	*Superior vena cava obstruction*
TBNA	*Transbronchial needle aspiration*
TKIs	*Tyrosine kinase inhibitors*
TPS	*Tumor proportion score*
TTF-1	*Thyroid transcription factor*
TTNA	*Transthoracic needle aspiration*
UK	*United Kingdom*
VAM	*Video-assisted mediastinoscopy*
VATS	*Video-assisted thoracoscopic surgery*
WHO	*World health organization*

INTRODUCTION

Lung cancer represents the top cause of death and the most common cancer worldwide. In the United States, lung cancer is the second most common cancer accounts for 12.9% of new cancer diagnoses and 27.4 of all cancer deaths. Non small cell lung cancer (NSCLC) represents up to 80% of all lung cancers which divided into two major types: squamous cell carcinoma (SCC) and nonsquamous cell carcinoma (NSCC, including adenocarcinoma, large-cell carcinoma, and other subtypes) ***(Meza et al., 2015).***

The ability to monitor response to treatment depend on imaging studies which is expensive and difficult as not all patients have measurable disease which complicate the availability of evaluating response so a number of biomarker had been used in diagnosis, prognosis and therapeutic monitoring ***(Molina et al., 2009).***

CEA (carcinoembryonic antigen) is the most frequently used tumor marker in the world. It is a glycoprotein product of the gene *CEACAM*-5, produced in the fetal period by cells of the digestive tract and pancreas ***(Hammarström, 1999).***

A number of tumor markers are used in monitoring response to treatment like PSA (prostate specific antigen) in prostate cancer and CA125 in ovarian cancer. CEA was

established as a prognostic factor in metastatic colon cancer and it is part of routine follow up as recommended by NCCN ***(Benson et al., 2018).***

In the case of lung cancer, there is no sufficient sensitive and specific factor that could help in diagnosis and monitoring of response. A number of studies evaluate the role of CEA in diagnosis, prognosis and monitoring of response in lung cancer ***(Yu et al., 2013).***