بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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جامعة عين شمس

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قسم

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MONA MAGHRABY

Patterns of Care and Treatment Pathways for Non-Surgically Managed Early and Locally Advanced Non-Small Cell Lung Cancer Patients at Ain Shams University Clinical Oncology Department:
a Retrospective and Descriptive Analysis

Thesis

Submitted for Partial Fulfilment of Master's Degree
in **Clinical Oncology & Nuclear Medicine**

By

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Christina Gamil Garas

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List of Abbreviations

Abb.	Full term
ASUCOD	*Ain Shams University Clinical Oncology Department*
ALARA	*As low as reasonable achieved*
ALK	*Anaplastic lymphoma kinase*
ASCO	*American Society of Clinical Oncology*
AUC	*Area under the curve*
BSC	*Best supportive care*
CALGB	*Cancer and Leukemia Group B*
cCRT	*Concurrent Chemoradiotherapy*
CRT	*Chemoradiotherapy*
CKD	*Chronic kidney disease*
CINV	*Chemotherapy induced nausea and vomiting*
COPD	*Chronic obstructive pulmonary disease*
CHART	*Continuous hyperfractionated accelerated radiotherapy*
CHF	*Congestive heart failure*
CM	*Conventional mediastinoscopy*
CPS	*Combined Positive Score*
CR	*Complete response*
CT	*Computed tomography*
CVA	*Cerebrovascular accident*
DNA	*Deoxyribonucleic acid*
DM	*Diabetes Mellites*
EBUS	*Endobronchial ultrasound*
ECOG	*Eastern Cooperative Oncology Group*
EGFR	*Epidermal growth factor receptor*
EORTC	*European Organization for Research and Treatment*
EUS-NA	*Endoscopic Ultrasound Needle Aspiration*
EML4	*Echinoderm microtubule-associated protein like4*
FDA	*Food and Drug Adminestration*

List of Abbreviations cont...

Abb.	Full term
FDG-PET	*Flurodeoxyglucose Positron emission tomography*
IHC	*Immunohistochemistry*
IHD	*Ischemic heart disease*
IGRT	*Image guided radiotherapy*
IMRT	*Intensity modulated radiotherapy*
KRAS	*Kirsten Rat Sarcoma*
LDCT	*Low dose computed tomography*
LC	*Lung cancer*
MET	*Mesenchymal-to-epithelial transition*
MIDs	*Molecular Immune Density Score*
MRI	*Magnitic Resonance Imaging*
NLST	*National lung screening trial*
NCCN	*National Comperhinsive Cancer Network*
NOS	*Not otherwise specified*
NSCLC	*Non-small cell lung cancer*
NPV	*Negative Predictive Value*
OS	*Overall survival*
PCI	*Prophylactic cranial irradiation*
PD	*Progressive disease*
PD-1	*Programmed death-1*
PD-L1	*Programmed death ligand 1*
PFS	*Progression free survival*
PR	*Partial response*
PS	*Performance status*
RECIST	*Response evaluation criteria in solid tumor*
RP	*Radiation Pneumonitis*
SBRT	*Stereotactic body radiation therapy*
SCC	*Squamous cell carcinoma*
sCRT	*Sequential Chemoradiotherapy*
SEER	*Surveillance, Epidemiology, and End Results*
SD	*Stable disease*

List of Abbreviations cont...

Abb.	Full term
SPN	*Solitary pulmonary nodules*
SUV	*Standardized uptake value*
SVCO	*Superior vena cava obstruction*
TKIs	*Tyrosine kinase inhibitors*
TPS	*Tumor Propotion Score*
TTF-1	*Thyroid transcription factor*
USPSTF	*The United States Preventive Services Task Force*
VAM	*Video-assisted mediastinoscopy*
VATS	*Video-assisted thoracoscopic surgery*
VMAT	*Volumetric modulated arc therapy*
WHO	*World health organization*

INTRODUCTION

Lung cancer continues to be the leading cause of cancer-related deaths worldwide. Unfortunately, 50% to 60% of cases has been diagnosed with metastatic or advanced stage in different countries ***(Costa et al., 2016).***

Despite improvements in survival for many other types of cancer in recent years, 5-year survival for lung cancer has remained relatively poor, mainly because by the time a diagnosis is made, lung cancer is often well advanced and treatment options are limited ***(Costa et al., 2016).***

Additionally, Stage III non-small cell lung cancer (NSCLC) includes a highly heterogeneous group of patients with differences in the extent and localization of disease. Many aspects of the treatment of stage III disease are controversial. Unfortunately, the data supporting treatment approaches in specific patient subsets are often subject to a number of limitations; for example, that the trials involved heterogeneous patient populations; the definition of stage III disease has changed over time; and early studies were frequently inadequately powered to detect small differences in therapeutic outcome, were not randomized, or had limited duration of follow-up. Major improvements in therapy, including the use of more active chemotherapy agents and refinements in radiation and surgical techniques, also limit the interpretation of earlier clinical trials. Finally, improvements in pre-treatment staging have led to

reclassification of patients with relatively minimal metastatic disease as stage IV rather than stage III, leading to a prolonging in the apparent overall survival of both stage III and IV patients. Unavoidably, locally advanced NSCLC management guidelines from various groups do have some differences reflecting the opinions and treatment philosophy of the physicians involved in their generation ***(Walraven et al., 2017).***

Despite multimodality treatment, the prognosis for unresectable stage III NSCLC remains poor, with five-year overall survival (OS) rates of approximately 15 percent. Therefore, newer treatment paradigms have evolved, for example, incorporation of immunotherapy ***(Aupérin et al., 2010).***

Aim of the Work

This retrospective observational study aims to describe the pattern of care and treatment pathways for non-metastatic unresected NSCLC in Ain Shams University Clinical Oncology Department (ASUCOD) from January 2015 till December 2018.