EVALUATION OF ACCELERATED (RAPID) FRACTIONATION RADIATION THERAPY IN TREATMENT OF LOCALLY ADVANCED NON-OAT CELL LUNG CANCER

THESIS

Submitted for Partial Fulfillment of
M.D. Degree In
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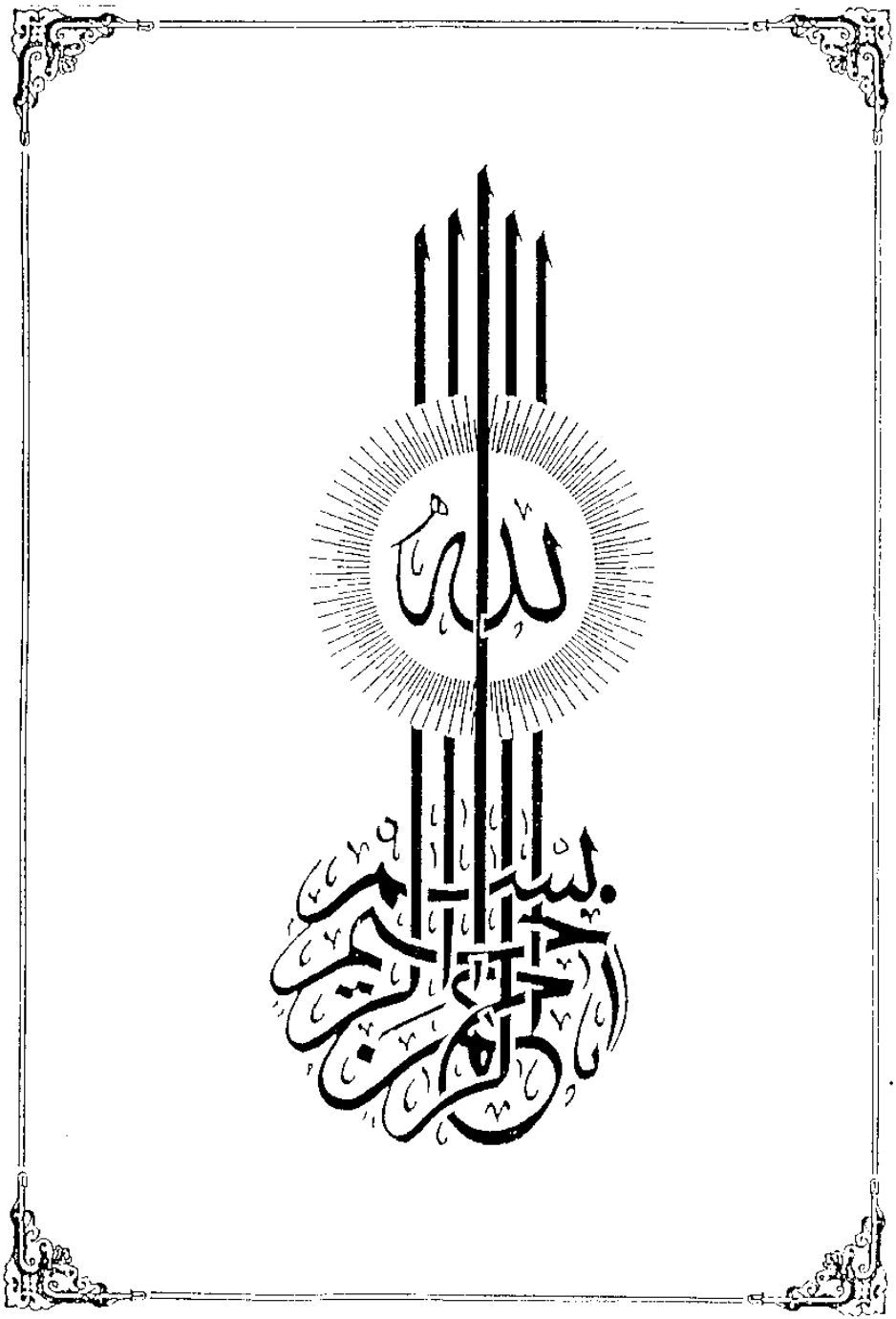

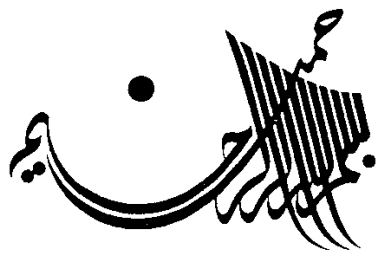

TO MY FAMILY

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LIST OF ABBREVIATIONS

Adeno = Adenocarcinoma
Afx = Accelerated fractionation
AP/PA = Antero-posterior and postero-anterior fields
ATS = American Thoracic Society
b.i.d. = Twice daily
BEV = Beam's eye view
CEA = carcinoembryonic antigen
cGy = centigray
CHART = Continuous Hyperfractionated Accelerated Radiation Therapy
CHF = Congestive Heart Failure
COPD = Chronic obstructive pulmonary disease
CR = complete response
CT = Computed Tomogaphy
CTV = clinical target volume
CXR = Chest X-ray
D.M. = Distant Metastases
DFS = Disease free survival
DLCO = Diffusion capacity for carbon monoxide DLCO
DRR = Digitally reconstructed radiograph
DVHs = Dose-volume histograms
ECOG = Eastern Co-operative Oncology Group
EGF = Epidermal Growth Factor
EGFR = Epidermal Growth Factor Receptor
EORTC = European Organization for Research and Treatment of Cancer
FEV1 = forced expiratory volume at one second
FVC = Forced Vital Capacity

g/dl = gram/deciliter
G-CSF = Granulocyte Colony Stimulating Factor
Ga-67 = Gallium-67
GM-CSF = granulocyte-macrophage colony stimulating factor
GTV = Gross tumor volume
Gy = Gray
HDR-ILBRT = High-dose-rate fractionated intraluminal brachytherapy
HFX = hyperfractionation
ICE = Ifosfamide/Carboplatin/Etoposide
ICRU = International Commission on Radiation Units
IGF-1 = insulin-like growth factor-1
IL-2 = Interleukin-2
ISS = International Staging System
KPS = Karnofsky Performance Status
KS = Karnofsky Scale
LCSS = Lung Cancer Symptom Scale
MAA = Macroaggregated Albumin
mCi = milliCurie
MDP = Methylene Diphosphonate
MoAs = monoclonal antibodies
MR = Magnetic Resonance
MRI = Magnetic Resonance Imaging
MV = Megavolt
MVP = Mitomycin, Vinblastine, Cisplatin
NC = No change
NCCTG = North Central Cancer Treatment group
NNK = nicotine-derived nitrosamino ketone

NNN = N'-nitrosonornicotine
NR = No response
NSCLC = Non Small Cell Lung Cancer
NTCP = normal tissue complications probabilities
PD = Progressive disease
PDGF = platelet derived growth factor
PDT = Photodynamic Therapy
PET = Positron emission tomography
PFNAB = Percutaneous Fine-Needle Aspiration Biopsy:
PFS = Progression free survival
PFT = Pulmonary function tests
PR = Partial response
PS = Performance Status
PTV-1 = Planning Target Volume
PTV-2 = Planning Target Volume
QOL = Quality of life
RT = Radiation Therapy
RTOG = Radiation Therapy Oncology Group
SCC = Squamous Cell Carcinoma
SPECT = Single Photon Emission Computed Tomography
Tc-99m = Technetium-99m
TCP = tumor control probabilities
TEE = Transesophageal Echography
TGF-B = transforming growth factor-beta
TIL = Tumor Infiltrating Lymphocytes
TNF = Tumor necrosis factor
TNF-alpha = Tumor Necrosis Factor - alpha
TOR = Total objective response

Tpot = which is defined as the hypothetical time required for the tumor cell population to double in number

ULC = Undifferentiated Large Cell

U/ml = unit/milliliter

WHO = World Health Organization

XRT = Thoracic irradiation