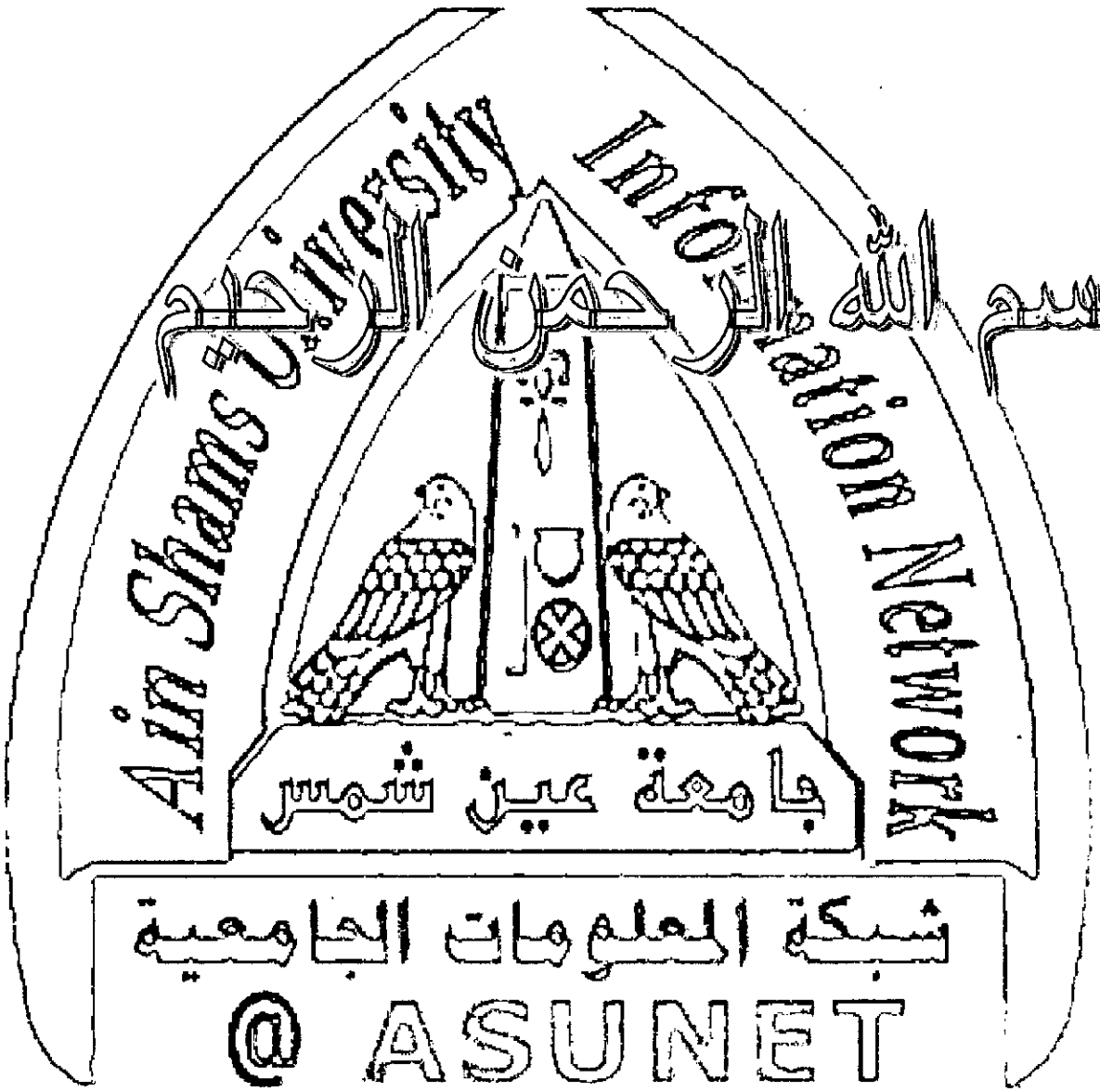
شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات

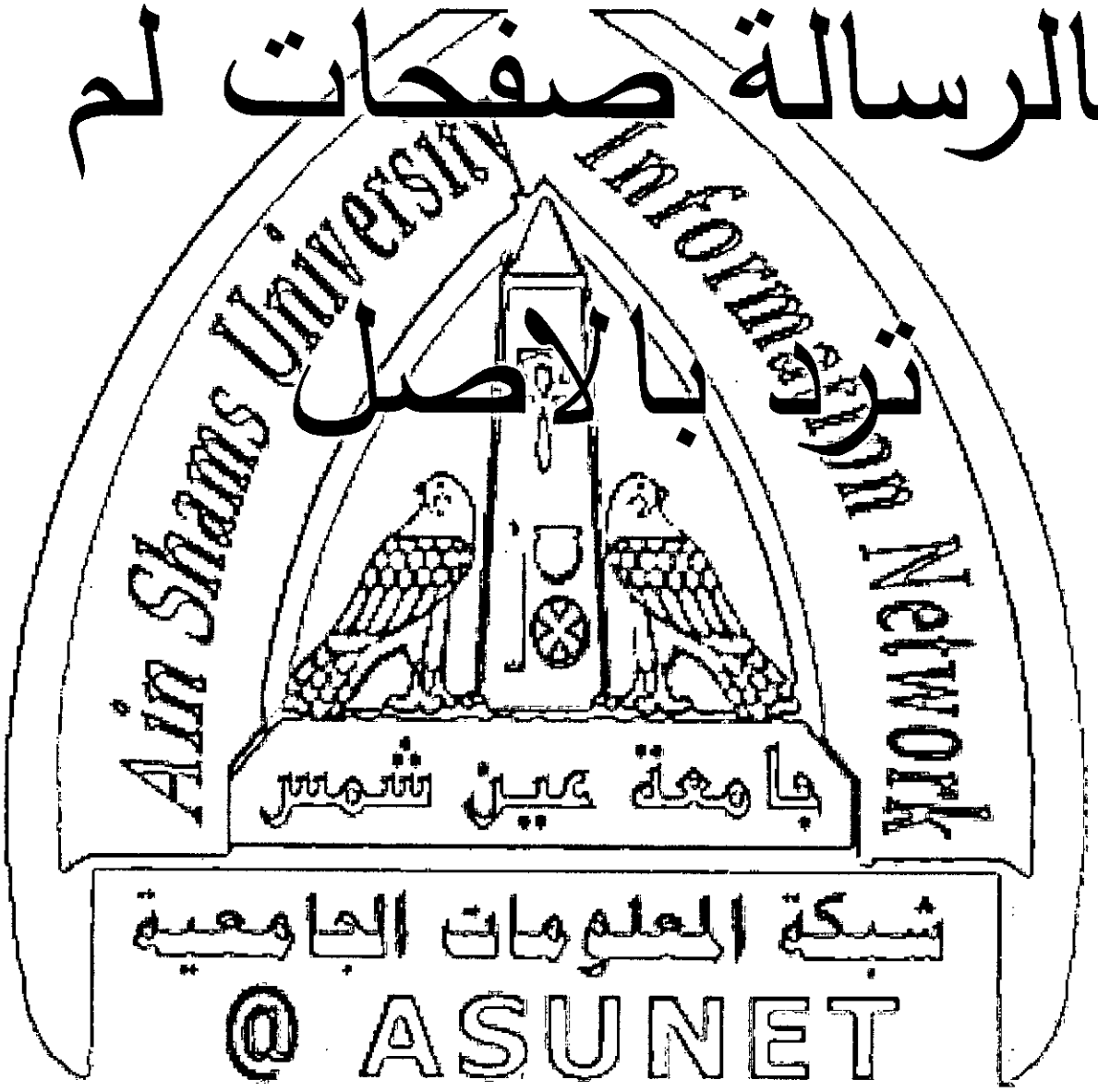
يجب أن

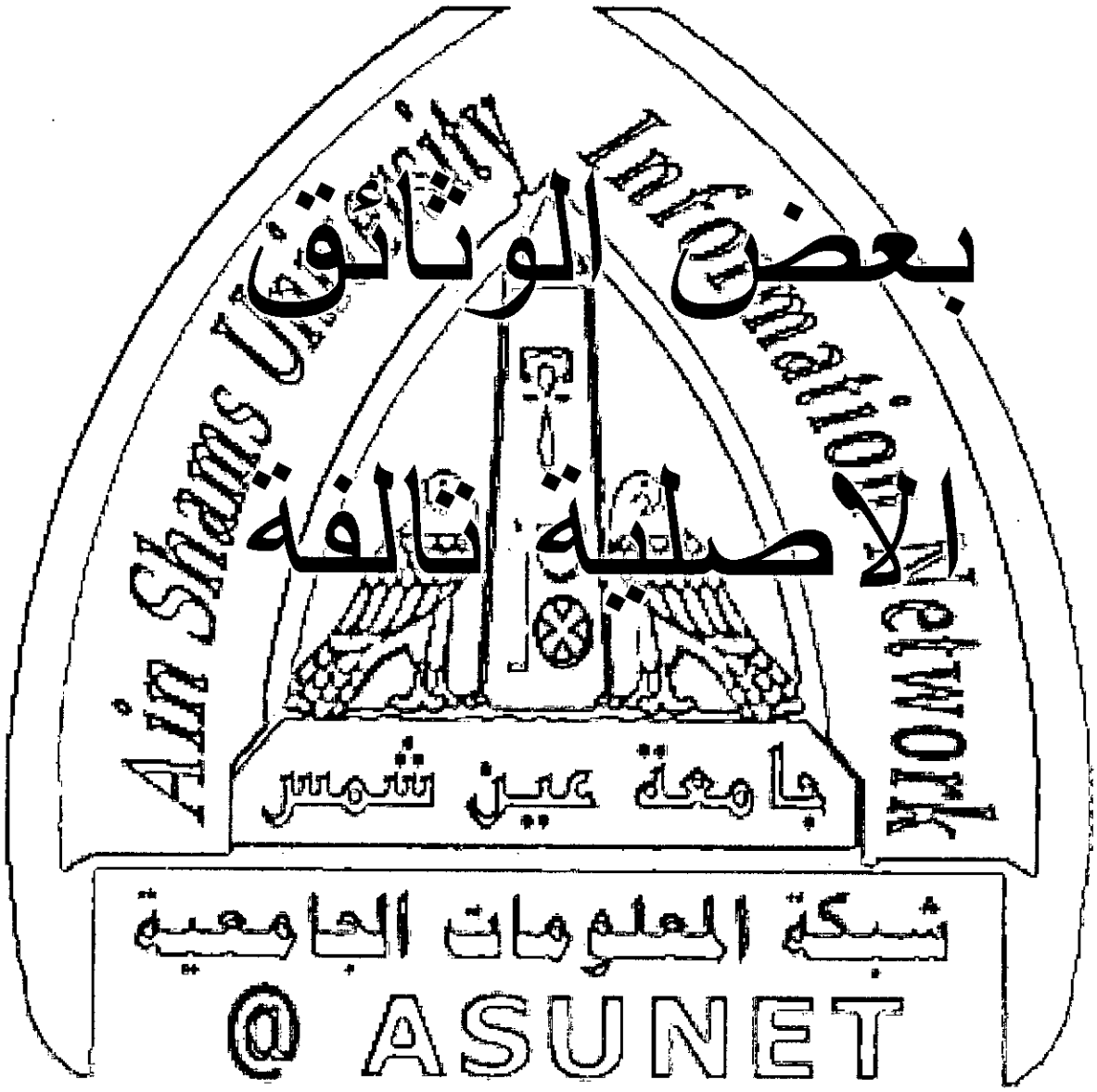
تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%

بالرسالة صفحات لم ترد بالأصل





بعض الوثائق
الأصلية تالفة

6

BLADDER PRESERVING APPROACH BY CHEMO-RADIOTHERAPY IN PATIENTS WITH MUSCLE INVADING TRANSITIONAL CELL CARCINOMA

Thesis submitted for partial fulfillment of M.D. degree in radiation oncology

By

Mohamed Abd El-Hameed Ahmed Aboziada
M.B., B.Ch., M.Sc.

Supervisors

Prof. Dr. Mohamed Atef Abd El-Aziz
Prof. of Urology
Faculty of Medicine& Dean of SECI
Assiut University

Prof. Dr. Hany Mohamed Akoush
Prof. of Radiation Oncology
National Cancer Institute
Cairo University

Prof. Dr. Samia Abd El-Kareem Aly
Prof. of clinical oncology
Assiut University

South Egypt Cancer Institute (SECI)
Assiut University

2004

٩٢٧٨٠

To...

My Patients,

Who taught me by their courage and suffering.

My Teachers,

Who inspired me with their knowledge and insight.

My Family,

Who unselfishly endured my endeavors.

M. abdel hameed abo ziada

Contents

Acknowledgments

ALLAH, the greatest creator and the most merciful sustainer, to be thanked for everything and for the strength he gave me to accomplish this work, to his might I should be most thankful.

I would like to express my profound gratitude and sincere appreciation to ***Prof. Dr. M. Atef Abdel Aziz,*** *Professor of urology and Dean of SECI, Assiut University, for his supervision, constructive guidance, critical comments, continuous help and great efforts throughout this work.*

I wish to express my deep appreciation and gratitude to ***Prof. Dr. Hany M. Akoush,*** *Professor of Radiation Oncology, Cairo University, for being a continual source of support, his close supervision, numerous suggestions, fruitful discussions and kind encouragements. Without his meticulous help and advises, this work would not have been done*

I am deeply grateful to ***Prof. Dr. Samia Abdel Kareem Aly,*** *Professor of Clinical Oncology, Assiut University, for her close supervision, sympathetic support, valuable advice, huge help and encouragement throughout this work.*

My thanks extend to all staff members and colleagues of SECI for their help and cooperation.

M. abdel hameed abo ziada
2004

List of Tables

List of Figures

ABRIVATION

AI: Apoptosis index.

BC: Bladder cancer.

BCG: Bacilles bilie de Calmette- Guerin.

cCR: Clinical complete response .

CCRT: Concomitant chemo-radiotherapy.

CIS: Carcinoma in situ

DFS: Disease free survival

DRE: Digital rectal examination.

GTV: Gross target volume.

HPV: Human papilloma virus.

ICRU: International commission on radiation units and measurements.

MCV: Methotrexate, Cisplatin, vinblastine

MGH: Massachusetts General Hospital.

MIBC: Muscle-invasive bladder cancer.

M-VAC: Methotrexate, vinblastine, Adriamycin, Cisplatin.

OS: Overall survival.

PS: Performance status.

PR: Partial response.

PCR: Pathological complete response.

PORT: Post operative radiotherapy.

pRb: Retinoblastoma protein.

PTV: Planning target volume.

RCT: Radio-chemotherapy.

RFS: Recurrence free survival.

RTOG: Radiation Therapy Oncology Group.

SD: Stationary disease.

UICC: International union against cancer.

XRT: External beam irradiation.

Introduction And Aim Of The Works

INTRODUCTION

Bladder Cancer constitutes 4% of all cancer in United State, and represents 30.3% of all cancer cases treated at Egyptian National Cancer Institute **(Nazli et al., 2001)**. South Egypt cancer institute reported a relative frequency of 18.5% from year 2000-2002 **(Alia, 2003)**.

The relative frequency of histological subtypes of bladder carcinoma depends on the clinical setting. About 90% -95% of bladder carcinoma reported from the west are transitional cell type **(Shipley et al., 2002)**. In large series reported from Egypt, squamous cell carcinoma accounted for 59% - 73% of bilharzial bladder cases **(Awwad et al., 1992, Ghoneim et al., 1997 and El-Bolkainy et al., 1998)**.

The prognosis and treatment outcome depend on the depth of bladder-wall invasion. Superficial disease has an excellent prognosis, whereas the survival rate decreases significantly for deeply invasive tumors **(Shipley et al., 1997)**.

Muscle-invasive bladder cancer (MIBC) is a disease associated with a relatively low cure rate. The optimal management of MIBC has been a continuous subject of controversy. Radical cystectomy represents the most frequent treatment approach. Despite great advances in surgical techniques and better perioperative support, even a neovesica cannot substitute for the patient's original bladder without entailing a high risk of infection and consequential renal failure, metabolic disorders, and sexual dysfunction. The other drawback of this treatment approach lies in the fact that over half of the patients will die with distant metastases **(Raghavan et al., 1995)**. Local recurrence represented

50%-60% of the causes of failure after radical cystectomy **(Zaghloul et al., 2003).**

In view of these problems, several clinical studies were conducted using a bladder-sparing approach to the treatment of this disease. In the past decade, the most promising advance has been achieved using transurethral surgery (TUR) and combined chemo-radiotherapy regimens. This treatment approach uses the advantages of the favorable effects of cisplatinum-based chemotherapy as well as the synergistic effects of chemotherapy and radiotherapy **(Joica Ervek et al., 1998).**

In selected patients, bladder preserving treatment with TUR, radiation therapy and concurrent chemotherapy offers a probability of long term cure and overall survival at 5-years is comparable to cystectomy-based approaches (49% to 63% at 5 years) in patients of similar clinical stage and age. Five-year survival with bladder preservation is 38% to 45%. In addition, these selective bladder-preserving approaches result in approximately 80% of the long-term survivors maintaining a normal functioning bladder **(Michaelson and Zietman, 2003).**

Evolving data show that the categorical recommendation of surgically removing the bladder in all cases with invasive disease is outdated. It is nevertheless important to stress that the primary goal of treatment is survival, and sparing the bladder is justified only when it has a high likelihood of eradicating the tumor in the bladder, the risk of recurrence is low, and bladder function is not compromised. Many groups have reported favorable cure rates with bladder-preserving methods in selected patients with tumors who met certain criteria. Cystectomy reserved for those who do not meet these criteria **(Harry et al., 2001).**