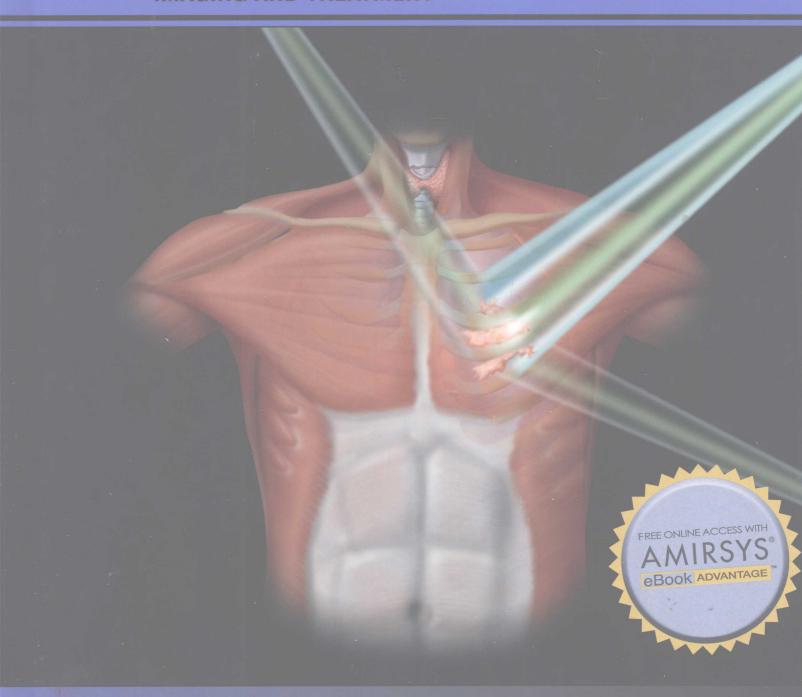
# RADIATION ONCOLOGY IMAGING AND TREATMENT



## **GAFFNEY**

Shrieve - Anker - Buyyounouski - Kong - Hitchcock - Tward



## RADIATION ONCOLOGY

**IMAGING AND TREATMENT** 

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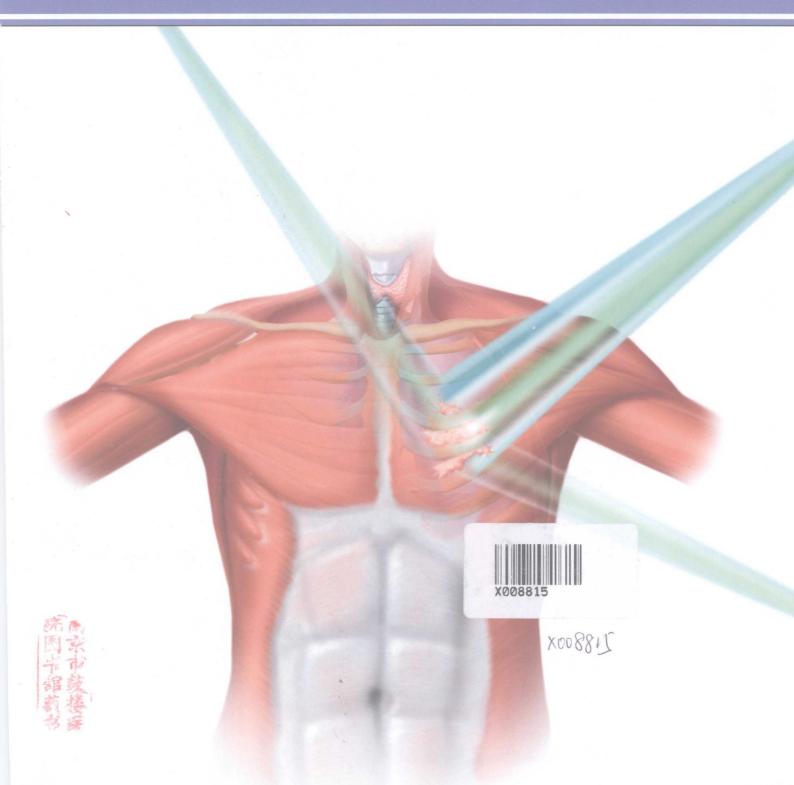
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# RADIATION ONCOLOGY IMAGING AND TREATMENT





I am grateful to all medical professionals who share their knowledge and participate in multidisciplinary care of the cancer patient. Working together, I believe we achieve powerful results.

And to the three brightest stars in the sky: My wife, Lorrie, and our girls, Samantha and Jessica.

DKG

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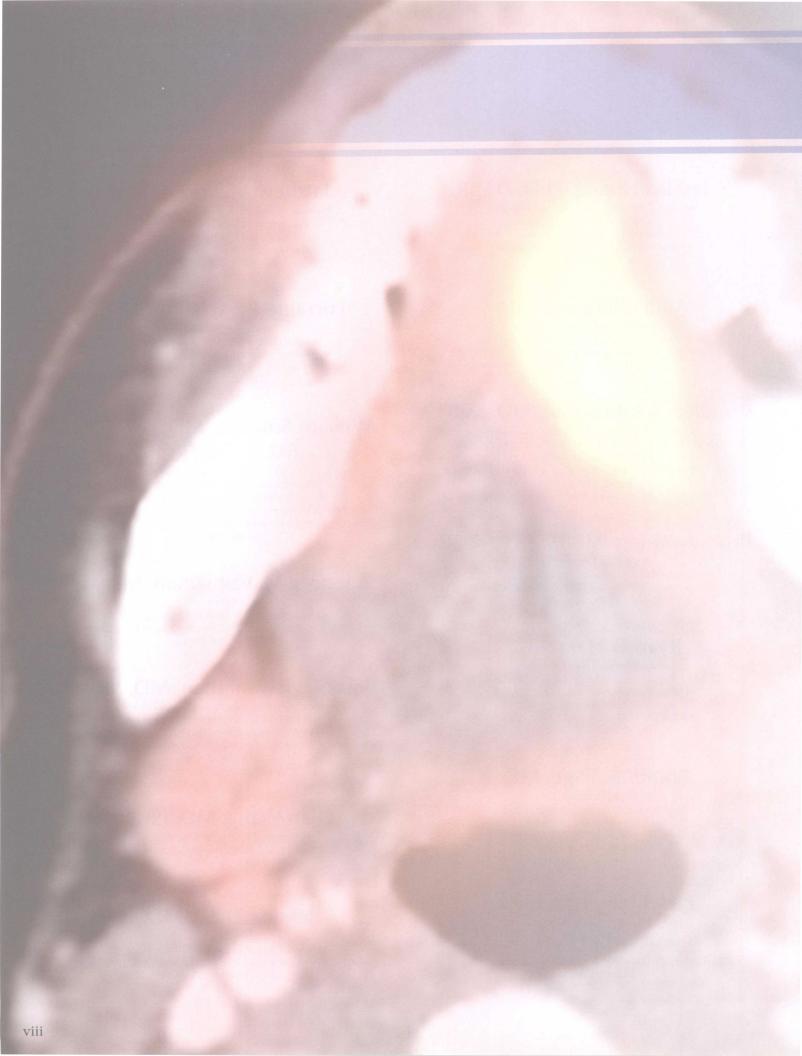
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## PREFACE

We are pleased to present *Radiation Oncology: Imaging and Treatment*, the most up-to-date collection of staging, imaging, and radiotherapy planning information for cancers of the entire body. This text unites the sister disciplines of diagnostic radiology and radiation oncology.

Each lavishly illustrated chapter highlights critical aspects of a particular cancer. Bulleted text distills pertinent information to the essentials. Reference tables provide quick access to definitions for TNM staging and AJCC prognostic groups. Rich drawings illuminate these categories. High-quality images demonstrate the clinical appearance of and treatment approach for practically every stage of every tumor. All of these vivid images—more than 2,500 in the volume—are fully annotated to maximize their illustrative potential. Whether you are looking for routes of spread, imaging techniques for local staging, treatment options, or effects of treatment, you will find it quickly in this easy-to-use yet comprehensive reference.

Radiation Oncology: Imaging and Treatment was designed with you, the reader, in mind. We think you'll find this new volume a handy and wonderfully rich resource that will enhance your practice and find a welcome place on your bookshelf.

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#### **GLIOMAS**

| <b>RPA Classif</b> | ication  |                             |               |
|--------------------|--|-----------------------------|---------------|
| Stage              | Characteristics  | Median Survival<br>(Months) | 2-year OS (%) |
| High-Grade T       | umors Without Temozolomide   |                             |               |
| I                  | Age < 50, normal MS  | 59                          | 76            |
| II                 | Age $\geq$ 50, KPS $\geq$ 70, symptoms $>$ 3 months  | 37                          | 68            |
| III                | Age < 50, abnormal MS  | 18                          | 35            |
|                    | GBM: Age < 50, KPS > 90  |                             |               |
| IV                 | Age $\geq$ 50, KPS $\geq$ 70, symptoms $\leq$ 3 months   | 11                          | 15            |
|                    | Age < 50, KPS < 90; or GBM S/P resection able to work  |                             |               |
| V                  | Age ≥ 50, KPS < 70 and normal MS   | 9                           | 6             |
|                    | Age $\geq$ 50, KPS $\geq$ 70, and S/P surgery not able to work, or S/P biopsy receiving at least 54.4 Gy; or age $\geq$ 50, KPS < 70 with normal mental status |                             |               |
| VI                 | Age $\geq$ 50, KPS < 70, abnormal MS; or S/P biopsy receiving $\leq$ 54.4 Gy   | 5                           | 4             |
| Update for G       | BM With Temozolomide   |                             |               |
| III                | Age < 50, WHO PS 0   | 21                          | 43            |
| IV                 | Age < 50, WHO PS 1-2; age $\geq$ 50, S/P surgery, MMSE $\geq$ 27   | 16                          | 28            |
| V                  | Age $\geq$ 50, S/P surgery with MMSE < 27 or biopsy only   | 10                          | 17            |

| Low-Grade Glioma<br>Group Stratification |       |                   |
|--|-------|-------------------|
| Risk Group                               | Score | Median OS (Years) |
| Low                                      | 0-2   | 7.8               |
| High                                     | 3-5   | 3.7               |

<sup>\*</sup>Risk factors:  $Age \ge 40$ , astrocytoma histology, tumor size  $\ge 6$  cm, tumor crosses midline, neurologic deficit.