

This book is a collection of articles regarding the biology, pathogenesis and treatment of patients with gastrointestinal stromal tumor (GIST). While GIST is a devastating cancer that unfortunately remains fatal for far too many patients, the field of GIST has also undergone many advancements and patient outcomes have dramatically improved. One reason for this success is that the clinicians and researchers treating GIST are highly collaborative and come from many different medical disciplines including surgical oncology, interventional radiology, as well as gastrointestinal and sarcoma medical oncology. I was therefore thrilled to learn that the AME publishing company was preparing this unique volume reflecting the true diversity of perspectives and approaches towards this terrible disease. These articles do not have a singular perspective as often happens when a single editor invites multiple chapters. Instead, this book is a compilation of high quality articles published in AME journals and therefore the book was developed organically to represent the many different perspectives and practices held by clinicians and researchers who study and treat GIST.

The book is organized into five major sections: Introduction, Pathogenesis, Diagnosis, Treatment and Rare GIST sections. The introduction section begins with a truly definitive review by Zhao and Yue describing the state of the field as a whole. While the review touches upon nearly every topic relative to the diagnosis and treatment of GIST, I think everyone with an interest in GIST should take a look at the “Historic Overview” which puts the field as a whole into perspective. GIST is fundamentally a mesenchymal neoplasm of the gastrointestinal track that was “just another” sarcoma subtype as recently as the early 1990’s. However, unlike other sarcoma subtypes where multiple disheartening failures have sometimes made the field feel stagnant in spite of some isolated successes, our understanding of GIST keeps moving forward, leading to more treatment options and better patient outcomes. The success of this research has remains a source of hope for patients with other mesenchymal tumors.

The Introduction section also includes overviews describing therapeutic approaches to esophageal and rectal GIST – two anatomic locations which have been sadly under-discussed by the academic GIST community. The section concludes with a review of the Asian consensus guidelines for GIST, comparing and contrasting key elements of these guidelines with other guidelines from around the world ultimately demonstrating that there is more agreement than disagreement in the international community but also identifying some interesting controversies and areas for further discussion. This article is highly relevant as the progress made in the treatment of GIST has been a truly international effort. This is reflected by the authors and editors of this book itself who are from all over the world, particularly from China and the United States but also from Brazil, Russia, India, Canada, Turkey, Italy and others.

The pathogenesis section consists of a comprehensive review by Niinuma *et al.* discussing not only *KIT* sequencing but also *PDGFR $\alpha$*  and *SDH*-deficient disease as well as clinically relevant situations, such as the cohorts of patients with familial GIST, that have shed light on our understanding of this biology. The review goes on to discuss a number of critical but under-discussed topics related to the pathogenesis of GIST such as the importance of RAS signaling mutations for some patients as well as tumor suppressor genes like *NF1* and the epigenetic changes that result from these various mutations and are likely responsible for much of GIST’s clinical behavior.

The Diagnosis section begins with an article regarding ultrasound guided biopsy collection in GIST patients (Cui *et al.*). Decisions regarding when and how to biopsy a tumor that is potentially GIST are often controversial and can be very relevant therapeutically. The discussion in this article is balanced while also offering a unique perspective. Similarly, proper imaging is critical for diagnosis, staging and surveillance of GIST patients. The pictorial overview by Gong *et al.* present a comprehensive overview of imaging for GIST in the stomach demonstrated through striking images as well as commentary and an approach that is relevant for imaging of GIST elsewhere in the gastrointestinal tract.

The Treatment section includes comprehensive overviews regarding both surgical and systemic approaches to treatment. This section is notable for its particular attention to the many unique issues related to resection of gastric GIST, opening with a review on surgical management of GIST tumors of the stomach by Lim *et al.* providing detailed discussion of all major studies focused on this subset of GIST tumors. This articles pairs well with accompanying articles by Tan *et al.* and Koh *et al.* reviewing the major advances in minimally invasive approaches for these patients as well as endoscopic resection. The paper by Mitsui *et al.* goes on to discuss the role of endoscopic approaches for non-gastric as well as gastric tumors and work by Gluzman *et al.* presents a wide ranging Russian experience on surgical management of GIST tumors generally from through out the gastrointestinal track.

The role of surgery in the metastatic setting is another controversial topic but is very important for many patients. The

decision to resect metastatic disease may be the key to long-term disease free survival in some patients while for others, it can add unnecessary pain and morbidity with little benefit. The review by Kikuchi *et al.*, gives excellent guidance to clinician trying to weigh the potential advantages and disadvantages for their individual patient in the context of modern systemic therapy.

The use of adjuvant and neoadjuvant imatinib is absolutely critical for the success of definitive surgery in the high-risk population. The review by Ishikawa *et al.* clarifies the critical role that neoadjuvant imatinib can have in the right patients while the review by Shetty *et al.* discusses the use of imatinib and other tyrosine kinase inhibitors in the adjuvant and metastatic setting where they have been truly revolutionary. However, the review by Zeichner *et al.*, makes the point that while tyrosine kinase inhibitors are life-saving and invaluable medicines, they are also quite expensive and therefore need to be used selectively in the patients who are likely to benefit. While radiation is not standard for patients with GIST there are certainly settings where its use is appropriate and this is discussed in a convincing review by Halpern *et al.*

The Rare GIST section discusses a number of unusual GIST locations (for example, the prostate) and patterns of metastatic spread as well as unusual situations such as coexistence of GIST with a colorectal adenocarcinoma and treatment of GIST in a patient with neurofibromatosis. Like all great case reports, these articles highlight general issues related to biology and treatment that relate to the field as a whole.

In summary the book's editors, in collaboration with the AME publishing company, have put together a truly remarkable compilation of outstanding articles that I believe will be indispensable reading for physicians and researchers around the world. I am honored to be a part of it and hope that you enjoy. Most of all, I hope that this volume helps to further unite the community of GIST experts across the globe to push the field further forward, improving treatments and allowing our patients to live longer and better lives.



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