

BOOK REVIEWS

Disposition of Toxic Drugs and Chemicals in Man (10th edition)

Randall C Baselt
Biomedical Publications, 2014,
£394 (hardback), 2011 pp
ISBN 978 0 96265 239 4

This was my first encounter with a frankly amazing book that offers succinct monographs on a wide range of drugs and other chemicals. The preface indicates that 280 substances have been added in the new edition, bringing the total to around 1500. This is clearly a work in progress, as the changes from previous editions are listed: addition of CAS (Chemical Abstracts Service) numbers, molecular weight and empirical formula, amongst others. The substances are listed in alphabetical order in entries of mostly one or two pages in relatively small, but clear, font on fine paper.

A useful introductory section – described as a prologue – offers guidelines for the interpretation of analytical toxicology results. This makes clear the inherent hazards in such a book by stating that the “appropriate use of the information contained in this book is by no means straightforward”. This is analogous to the difference between reading a book about driving and actually being allowed behind the steering wheel of a moving car. From the pathologist’s point of view, particularly the forensic pathologist, there is useful comment on the changes in blood, plasma and tissue concentrations of drugs and other substances that can occur post mortem, how these relate to the situation ante mortem and the difficulties of interpretation. The entries include brief sections on ‘Occurrence and usage’, ‘Blood concentrations’, ‘Metabolism and excretion’ (some with structural diagrams), ‘Toxicity and analysis’ and comprehensive listing of references. The sections on toxicity include potentially lethal doses and a review of treatment options.

Taking a couple of examples, a review of the entries makes interesting and useful reading. Paracetamol (listed in the index as such but otherwise using its North American name, acetaminophen) starts with a listing of numeric data, including half-life of elimination ($t_{1/2}$), volume of distribution, pKa, CAS number and molecular weight. The abbreviations for these are fairly straightforward; a hunt through the prologue was necessary to define Fb (fraction bound to plasma protein) and b/p (blood:plasma concentration ratio). The structure of the drug is also given. This is a well-known and characterised substance that is widely used therapeutically and as an extremely unpleasant means of self-termination. Within the constraints of three pages, the main aspects of paracetamol pharmacokinetics and toxicity are summarised, including a structural diagram of metabolism and description of the mechanism of toxicity. The analytical details given are useful, if brief. An entry for Paraquat is also quite comprehensive, although the mechanism of toxicity (accumulation into the lung due to close structural similarity to endogenous polyamines such as putrescine) is not discussed.



While most of the entries are for drugs, other chemicals discussed include (for example) acetone, tetrodotoxin, methanol, diazinon and dioxin. It is similar in some respects to *Medical Toxicology (3rd edition)*, edited by RC Dart and published by Lippincott Williams & Wilkins in 2004, however the coverage of these two books is different both in scope and format, meaning that they could probably be used together. This book promises to be a major and most welcome addition to my shelves.

Adam Woolley
Consultant Toxicologist
ForthTox, Linlithgow

Prostate Cancer: Diagnosis and Clinical Management

AK Tewari, P Whelan and JD Graham (editors)
Wiley-Blackwell, 2014, £64.99 (hardback), £52.99 (Kindle),
350 pp
ISBN 978 1 11834 735 5

The authors of this new textbook aim to provide an up-to-date and evidence-based guide to all aspects of the diagnosis and management of prostate cancer. The first chapter sets the scene with a description of the epidemiology of this commonly diagnosed malignancy. The subsequent chapters follow the patient pathway, beginning with coverage of the investigative techniques involved in diagnosis, and with a discussion of the pros and cons of screening programmes. There is a chapter devoted to histopathology, which manages to give concise yet comprehensive coverage of the handling and reporting of routinely encountered specimen types. The comment in the last paragraph of this chapter, suggesting that clinicians visit a histopathology laboratory in order to better understand the processes involved, will be appreciated by any pathologists reading this textbook.

The use and limitations of prostate-specific antigen (PSA) measurements as a diagnostic test are extensively covered in the chapter on biomarkers. This section also provides information on a wide range of biomarkers in body fluids and tissue, which have been previously reported in the literature. There follows a well-illustrated and detailed account of modern imaging techniques. Further chapters cover all present treatment options, from active surveillance, surgery (with a very detailed and illustrated description) and radiotherapy, to novel focal therapies. The existing limitations in understanding how best to avoid over- or under-treatment of patients with prostate cancer are clearly described. There is a section on patient counseling and the latter part of the book covers the detection and management of relapse and metastatic disease and end-of-life care. The final two chapters discuss the future challenges of managing prostate cancer as a chronic disease and potential developments in the approach to diagnostic and disease management strategies, including genetic studies.

The overall presentation of this textbook is excellent. Topics

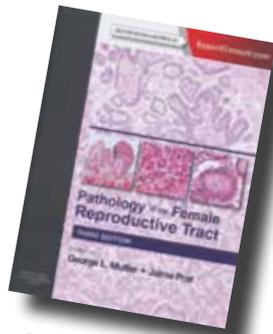
are covered in a logical manner and the content is presented in 17 relatively short chapters, with appropriate subheadings, that make for easy access to areas of interest. The text is well-written and clear and the level of detail is commendable in such a compact volume. The illustrations complement the text and the range of tables, radiological images, diagrams and photographs (including a set of colour plates) are of good quality. Each chapter is well referenced and the index is good. There are 38 contributors to the book, from seven countries. Either European or USA perspectives are therefore predominantly discussed in some chapters, depending upon each contributor's affiliation, but the general international balance is maintained. There is inevitably an overlap in the content of some chapters, with different contributors covering the same topic, such as PSA, but this is largely complementary information, with alternative viewpoints or aspects discussed. The Gleason grading system is, however, much better discussed in the histopathology chapter, as would be expected, than it is when described elsewhere.

This textbook fulfills its objective of giving a detailed – but succinct and easily accessible – account of prostate cancer for interested clinicians of different specialties and grades, with guidance on appropriate and best-practice patient management. Pathologists wishing to expand their knowledge of current diagnostic techniques, and the various treatment modalities available for prostate cancer, will find it an enjoyable and informative read.

Dr Anne Y Warren
Consultant Histopathologist
Cambridge University Hospitals NHS Foundation Trust

Pathology of the Female Reproductive Tract, 3rd edition

George L Mutter, Jaime Prat
Churchill Livingstone, 2014,
£163.77, 904 pages (Kindle edition
£155.58)
ISBN 978 0 70204 497 7



Pathology of the Female Reproductive Tract has been a truly international project since its inception. The current edition is authored by 33 experts in gynaecological pathology, including two authors from the UK, C Simon Herrington and W Glenn McCluggage. The book originally began with Malcolm Anderson's volume of the *Female Reproductive System* in the *Symmers Pathology Series* in 1991, becoming a standalone textbook in 2002.

The 2009 second edition was named *Robboy's Pathology of the Female Reproductive Tract* in recognition of the enormous editorial effort of Stanley Robboy. He was the main editor and contributed to 27 of the 36 chapters. Robboy was inaugurated President of the College of American Pathologists in 2011 and has contributed to six chapters in the current edition.

Readers will find this book an excellent reference for gynaecological pathology. It has an easily readable text accompanied by high-quality images, tables and

algorithms, and uses the most recent FIGO staging and WHO classifications throughout.

New to this edition are the presence of a helpful outline in the beginning of each chapter, a chapter dedicated to the molecular biology of cervical neoplasia (chapter 9) and practical information on intra-operative consultation and sampling/tissue issues included in some chapters.

HPV-related diseases of the lower genital tract are comprehensively discussed in six chapters. The two-tier system of low-grade dysplasia (LSIL) and high-grade dysplasia (HSIL) for all HPV-related pre-invasive squamous lesions of the lower ano-genital tract has been used and a similar theme is also used for endometrial hyperplasia (non-atypical *versus* atypical) and endometrial carcinoma (type 1 *versus* type 2). Some UK pathologists may be disappointed to see the term '(AIS)' used instead of high-grade CGIN and low-grade CGIN with its images have been deleted in this edition.

The topical subject of differentiated VIN is thoroughly discussed, including its pathology/aetiology, microscopy, differential diagnosis, biomarkers and clinical behaviour.

It is often difficult to predict the behaviour and plan for treatment of endometrial serous EIC, especially when it is found focally in an endometrial polyp. A statement that reads: "serous EIC cannot be considered a precursor lesion but rather an intraepithelial stage of carcinoma capable of spreading to distant sites" can be helpful for pathologists, gynaecologists and patients.

The malignant potential of endometriosis and the role of ARID1A mutations in endometrioid and clear cell carcinogenesis is clarified with this statement: "Nearly half of clear cell carcinoma carry the ARID1A mutation, this suggest that ARID1A inactivation occurs early during malignant transformation of endometriosis".

High-grade endometrial stromal sarcoma, which was prematurely removed in the second edition, is now resurrected based upon its distinctive histological and molecular characteristics. The role of (STIC) in the development of ovarian serous carcinoma is discussed in chapter 21, including the helpful practical advice about the use of the SEE-FIM protocol for extensive sampling of the fallopian tubes in women with BRCA gene mutation.

Relevant and updated cytogenetic alterations are discussed such as JAZF1-SUZ12 gene fusion in low-grade endometrial stromal sarcoma and YWHAE-FAM22 gene fusion in a subset of high-grade endometrial stromal sarcoma. Chapter 36, which is dedicated to immunohistochemistry/biomarkers, contains helpful advice regarding the diagnostic and prognostic usefulness and limitations of these markers in gynaecological pathology.

This book is a very useful reference text for the day-to-day diagnostic work of trainees and 'generalist' consultant histopathologists. Specialist gynaecological pathologists who seek to update and extend their knowledge in this field will find this book very helpful. The text and/or images can be accessed online through Expert Consult website.

Dr N Hasan
Consultant Cellular Pathologist
Whiston Hospital