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Book Reviews: Technical Books Section

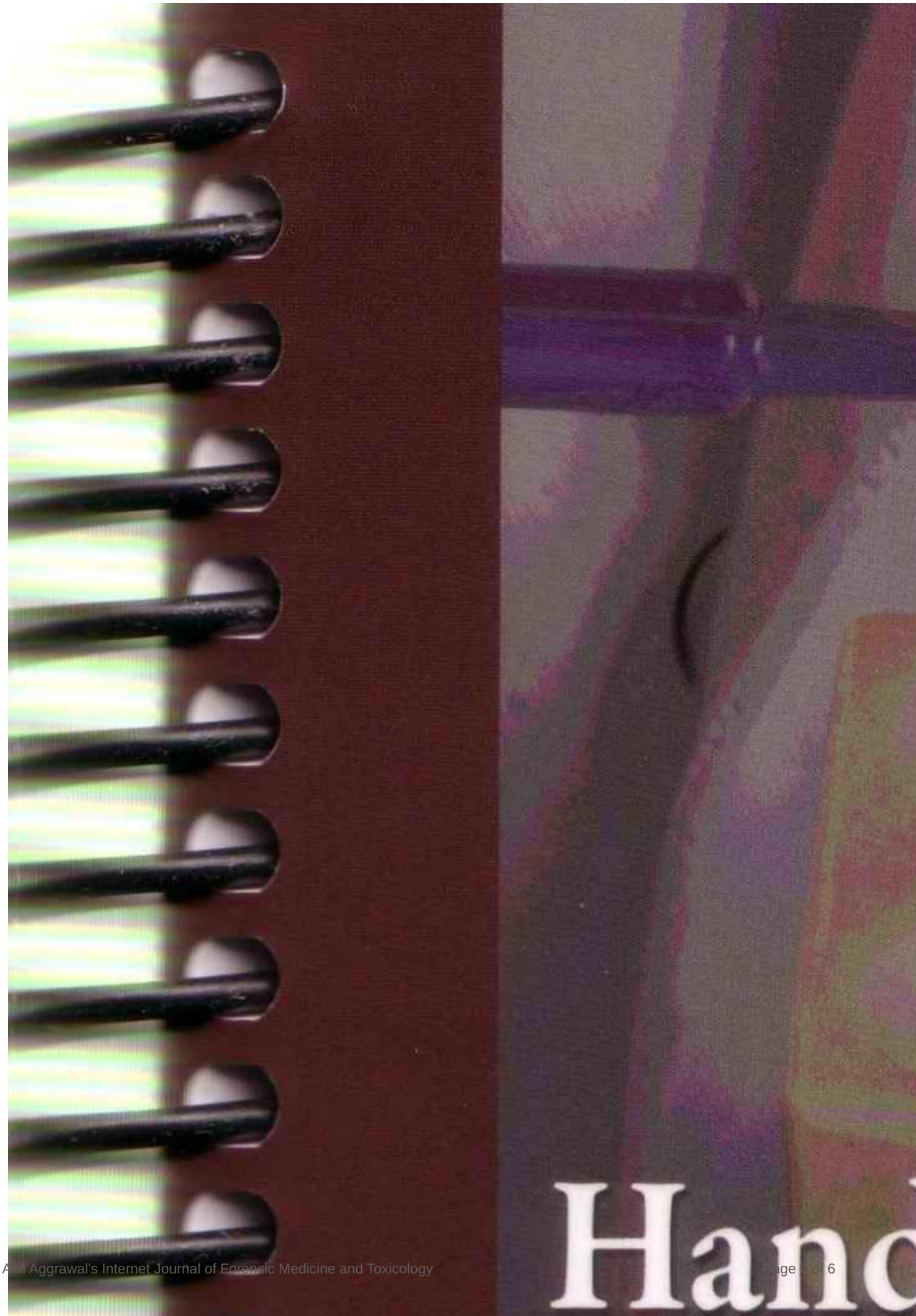
...AN EXCELLENT BOOK ON FORENSIC TOXICOLOGY ...This book is highly recommended to all forensic toxicologists and medical examiners. I for one would have it at my elbow always so I can fall back upon it, whenever I have to interpret any toxicological result that comes back from the laboratory...The author must be lauded for her efforts...

Handbook of Forensic Toxicology for Medical Examiners (From the series "Practical Aspects of Criminal & Forensic Investigations"), 1st Edition, by D. K. Molina. Spring Bound, 9.2" x 5.8" x 1.2". CRC Press LLC, 6000 Broken Sound Parkway NW, Suite 300, Boca Raton, FL 33487-2742. , . Publication Date July 21, 2009. 384 pages, ISBN-10: 1420076418; ISBN-13: 978-1420076417 (alk. paper). Price: $89.95, £57.99, ¥ 8,885, € 67.99.

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Hand

The book under review is an important work on forensic toxicology. As forensic professionals, we all deal with cases from time to time, when we suspect the person was poisoned and want to send viscera for chemical analysis. But which viscera to send for which poison, and how much? That is a question which may sometimes stump us. This book gives us good guidance on this.

This book is also a reliable sources of information to help interpret toxicology results. This is not available in many other books. For instance, if I am looking at, say, the levels of Pregabalin (an anticonvulsant), how do I interpret the toxicology results that come back from the lab? How much level is toxic? How much is lethal? A reference to this book will give us the answer instantly. The book is concise and references the most common toxic substances and their levels of toxicity. This makes it an ideal text for quick confirmation in the field or in the lab. The ring binding of the book helps in easy referencing.

...We all were looking for a concise handbook that provided critical information quickly without the need to wade through extraneous and inconsequential material. This handbook offers an easy-to-use format that allows quick access to the most pertinent information, saving time and increasing accuracy...

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The book begins by explaining the proper selection and submission of specimens for toxicological analysis. It describes the various types of specimens and identifies the cases for which these specimens would be most useful, providing instruction on proper collection. The author then explains the methodology involved in performing the specific tests.

Almost 300 toxic substances are discussed in the book. These are some of the most common toxic drugs found usually in our day-to-day work. The levels of toxicity of each drug is described. The book also describes how to obtain and submit samples, explains methods of analysis, provides hundreds of tables and data sets on substances causing toxicity that are commonly seen in forensic practice, and includes several appendices.

...The main section of the text consists of an alphabetical listing of nearly 300 toxic substances, including drugs of abuse, poisons, prescription drugs, and over-the-counter medications. For each entry, the book provides the common brand names; classification; half life; volume of distribution; usual dosage; tables of toxicity in various samples, including blood, urine, and tissues; and other important information based on the extensive experience of the author...

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This book is highly recommended to all forensic toxicologists and medical examiners. I for one would have it at my elbow always so I can fall back upon it, whenever I have to interpret any toxicological result that comes back from the laboratory.

Excerpts from the book:

This book is a significant addition to the literature on forensic toxicology. So that our readers can get some idea about what the book contains, the editors at the journal office decided to run some excerpts from this book. We particularly wanted to reproduce some information on drugs and poisons, so reader could know how the author presents her data on them. Here goes....

Benzene (page 39)

Brand names: component in paint remover, solvents, gasoline

Classification: volatile (aromatic hydrocarbon)

λ (half-life): 8-12 hrs

V_d : unknown

Usual dosage: not applicable

Source	Therapeutic/Nontoxic	Toxic	Lethal
Blood	0.000005-0.35 mg/L	No data available	0.9-120 mg/L
Urine			0.6-2.3 mg/L
Bile			11-45 mg/L
Liver			2.6-379 mg/L
Kidney			5.5-75 mg/L
Brain			14-179 mg/L
Lung			22 mg/L
Adipose tissue			22-120 mg/L
Stomach contents			10 mg/L

Comments

- Cardiotoxic: intoxication associated with arrhythmias

Estazolam (page 115)

Brand names: Prosom

Classification: benzodiazepine

λ (half-life): 10-30 hrs

V_d : 0.46-0.66 L/kg

Usual dosage: 1-2 mg qHS

Source	Therapeutic/Nontoxic	Toxic	Lethal
Blood	0.055-0.19 mg/L	1.25 mg/L	No data available

Comments

- Tolerance can develop and should be considered when interpreting drug concentrations
- Metabolized by CYP 3A

Morphine (page 205)

Brand names: MS Contin, Roxanol, Kadian, Avinza, Oramorph

Street names: Dreamer, Hows, M. Miss Emma

Classification: Narcotic

λ (half-life): 1.3-6.7 hrs

V_d : 2-5 L/kg

Usual dosage: 5-30 mg q 4-8 hrs

Source	Therapeutic/Nontoxic	Toxic	Lethal
Blood	0.001-0.2 mg/L	0.3-2.5 mg/L	0.2-7.2 mg/L
Vitreous			0.03-0.8 mg/L
Urine	0.5-20 mg/L		11-323 mg/L
Bile			0.05-248 mg/L
Liver			0.05-18 mg/L
Kidney			0.05-7 mg/L
Brain			0.05-1 mg/L
Skeletal Muscle			0.1-2 mg/L

Comments

- Tolerance can develop and should be considered when interpreting drug concentrations
- Concentrations for individuals on chronic pain therapy have been reported to routinely be as high as 0.7 mg/L; two studies report values > 2 mg/L
- Metabolite of heroin
- Active metabolites, morphine-3-glucoronide and normorphine

Zuclopenthixol (page 335)

Brand names: Clopixol, Cisordinol, Ciatyl-Z

Classification: antipsychotic

λ (half-life): 12-30 hrs

V_d : 15-20 L/kg

Usual dosage: 10-20 mg bid

Source	Therapeutic/Nontoxic	Toxic	Lethal
Blood	0.005-0.1 mg/L	0.15-0.3 mg/L	0.4-0.9 mg/L
Urine			0.96 mg/L
Liver			0.75 mg/L
Kidney			1.4 mg/L
Brain			0.12 mg/L
Stomach contents			105 mg/L

Comments

- Metabolized by CYP 2D6

The book is full of such facts related to **over 300 drugs and poisons** which we daily encounter in our practice of forensic toxicology. We are sure our readers would enjoy the book as much as we at the journal office did.

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