

Section I General Pathology

Chapter 11A Pediatric Autopsy 1

Mai He, Stefan G. Kostadinov, and J. Thomas Stocker

Chapter 11B Fine-Needle Aspiration 20

Robert F. Debski

Chapter 11C Molecular Techniques in Pediatric Pathology 23

Jason A. Jarzembowksi

Chapter 11D Electron Microscopy 53

Eric P. Wartchow, Gary Mierau, and M. John Hicks

Chapter 12 First and Second Trimester Pregnancy Loss 62

Grace Neville and Theonia K. Boyd

Chapter 13 Chromosomal Abnormalities 80

Robyn C. Reed

Chapter 14 Congenital Anomalies and Malformation

Syndromes 111

Stefan G. Kostadinov and Mai He

Chapter 15 Inborn Errors of Metabolism 147

Selene C. Koo and Peter Pytel

Chapter 16 Congenital and Acquired Systemic Infectious

Diseases 207

Jennifer Dien Bard, David Parham, and Louis P. Dehner

Chapter 17 Pediatric Forensic Pathology 276

Jonathan Eisenstat, Lora Darrisaw, and

Elizabeth Andrews

Chapter 18 Transplant Pathology 311

Kammi J. Henriksen, Sarangarajan Ranganathan,

and Aliya N. Husain

Section II Organ System Pathology

Chapter 19 Placenta 347

Raymond W. Redline

Chapter 110 Nervous System 373

Christopher Dunham and Arie Perry

Chapter 111 Eye 442

*Raymond G. Areaux, Jr, Amanda C. Maltry,
and J. Douglas Cameron (advisory)*

Chapter 112 Respiratory Tract 476

Jennifer Pogoriler, Aliya N. Husain, and Louis P. Dehner

Chapter 113 Cardiovascular System 564

*Umesh Dyamenahalli, Ivan P. Moskowitz,
Selene C. Koo, and Aliya N. Husain*

Chapter 114 Gastrointestinal Tract 430

Pierre Russo

Chapter 115 Liver, Gallbladder, and Biliary Tract 712

*Sarangarajan Ranganathan, M. John Hicks,
and Louis P. Dehner*

Chapter 116 Pancreas 811

Mariko Suchi

Chapter 117 Kidney and Lower Urinary Tract 848

Laura S. Finn, Aliya N. Husain, and Louis P. Dehner

Chapter 118 Female Reproductive System 925

Michael K. Fritsch and Shelly M. Cook

*Chapter 119 Male Reproductive System, Including Intersex
Disorders* 957

Hikmat Al-Ahmadie and Rohit Mehra

Chapter 120 Breast 990

Jason A. Jarzemowski and Louis P. Dehner

*Chapter 121 Pineal, Pituitary, Parathyroid, Thyroid,
and Adrenal Glands* 1013

*Nicole A. Cipriani, M. John Hicks, Peter Pytel,
Hiroyuki Shimada, and Florette K. Gray Hazard*

*Chapter 122 Oral, Maxillofacial, Head and Neck Pathology in
Pediatrics* 1085

M. John Hicks

Chapter 123 Lymph Nodes, Spleen, and Thymus 1128

Kamran M. Mirza, Choladda V. Curry,

and Andrea N. Marcogliese

Chapter 124 Bone Marrow 1165

Brooj Abro, Hina Naushad Qureishi, and Anjum Hassan

Chapter 125 Soft Tissue 1198

John S.A. Chrisinger, Jason A. Jarzemowski,

and Louis P. Dehner

Chapter 126 Skin 1303

Louis P. Dehner and Vijaya Reddy

Chapter 127 Neuromuscular Diseases 1361

Lili Miles, Matthew J. Schniederjan,

and Kevin E. Bove

Chapter 128 Skeletal System 1400

John S. A. Chrisinger and Louis P. Dehner

List of Appendices 1501

J. Thomas Stocker and Aliya N. Husain

Index 1551

Contents