

Contents

1 Respiratory System

Normal Chest	1
Normal Variations and Artefacts	6
Respiratory Distress in the Newborn	26
Medically Treated Causes of Respiratory Distress	26
Surgically Treated Causes of Respiratory Distress	76
Miscellaneous Causes of Neonatal Respiratory Distress	103
Miscellaneous Pulmonary Abnormalities	110
Chest Masses	120
Intrapulmonary Masses	124
Chest Wall Masses	126

2 Nasal Passages, Mandible and Upper Airway

Abnormalities of the Nasal Passages	132
Abnormalities of the Mandible	133
Abnormalities of the Pharynx	134
Abnormalities of the Larynx and Upper Trachea	141

3 Cardiovascular System

Normal Heart and Variations	147
Physiologic Considerations in Neonatal Heart Disease	149
Roentgenographic Orientation to Heart Disease in the Neonate	150
Lesions with Congested Vascularity	151
Left-to-right Shunt or Intracardiac Mixing	152
Left Side Obstruction	179
Myocardial Disease and Abnormal Myocardial Function	194
Lesions with Decreased Pulmonary Vascularity	200

Cardiac Malpositions	216
Ancillary Findings in Congenital Heart Disease	220
Vascular Anomalies and Rings	222
Venous Abnormalities	223
Miscellaneous Cardiac Abnormalities	233
Pericardial Abnormalities	236
Systemic Arteries and Veins	238
Vascular Abnormalities	238

4 Alimentary Tract

Esophagus	243
Esophageal Abnormalities	245
Miscellaneous Esophageal Lesions	263
Stomach	266
Abnormalities of the Stomach	269
Miscellaneous Abnormalities of the Stomach	276
Duodenum	280
Duodenal Abnormalities	281
Small Intestine	282
Abnormalities of the Small Bowel	288
Miscellaneous Small Bowel Diseases	297
Colon	301
Abnormalities of the Colon	301
Miscellaneous Colon Abnormalities	318
Gallbladder and Bile Ducts	321
Abnormalities of the Gallbladder and Bile Ducts	322
Liver	326
Spleen	331
Abnormalities of the Spleen	331
Pancreas	333
Abnormalities of the Pancreas	333
Abdomen	334
Abnormal gas patterns	337
Abdominal Masses—Radiologic Approach	339
Specific Abdominal Masses	341
Extraintestinal Air Collections	343
Peritonitis, Ascites, and Hemoperitoneum	346
Miscellaneous Abdominal and Gastrointestinal Abnormalities	350

5 Genitourinary Tract and Adrenal Glands

Upper Urinary Tract	356
Anomalies of the Upper Urinary Tract	359
Urinary Tract Infection	361

Ureteral Reflux	362
Renal Vascular Disease	363
Renal Masses	365
Ureteral Abnormalities	375
Lower Urinary Tract	379
Abnormalities of the Bladder and Urethra	380
Miscellaneous Urinary Tract Abnormalities	384
Genital Abnormalities	389
Disorders of the Adrenal Gland	393

6 Skeletal System and Soft Tissues

Normal Anatomy and Variations	399
Congenital Abnormalities	405
Trauma	414
Infectious and Inflammatory Bone Diseases	417
Histiocytosis X	426
Gaucher's Disease and Niemann-Pick Disease	426
Metabolic and Endocrinologic Disease	427
Vitamin Deficiencies and Excesses	434
Hematologic Disease	436
Chromosomal Abnormalities	436
The Bony Dysplasias	441
Miscellaneous Syndromes with Skeletal Changes	460
Trophic Lines, Growth Arrest Lines, Healing Lines	468
Soft Tissue Abnormalities	468
Tumors of the Skeleton and Soft Tissues	473

7 The Head, Brain, and Meninges

Normal Skull and Variations	477
Artefacts	484
Craniosynostosis	486
Spread Sutures: Increased Intracranial Pressure	496
The Large Head	498
The Small Head	514
Craniolacunias	514
Encephalocele and Cranium Bifidum	516
Congenital Dermal Sinus	516
Intracranial Calcifications	518
Trauma	526
Vascular Abnormalities	531
Inflammatory Disease of the Brain and Meninges	533
Brain Tumor	535

Intracranial Cysts	538
Miscellaneous Congenital Abnormalities of the Brain	538
Scalp and Miscellaneous Calvarial Lesions	543
Paranasal Sinuses, Mastoids, and Facial Bones	545
Ophthalmic Radiology	546

8 Spine, Spinal Cord, and Meninges

Normal Spine and Variations	548
Congenital Abnormalities of the Spine, Spinal Cord, and Meninges ..	551
Traumatic Lesions of the Spine and Spinal Cord	559
Infections of the Spine and Meninges	559
Tumors and Cysts of the Spine, Spinal Cord, and Meninges	561
Miscellaneous Abnormalities of the Spine	565

9 Fetal and Perinatal Radiology

Umbilical Vessel Catheterization	569
Fetal Age Determination	572
Erythroblastosis Fetalis	573
Conjoint Twins and Twin Parasites	573
Fetal Viability and Death	574
Fetal Causes of Polyhydramnios and Oligohydramnios	576
Vascular Insult in the Fetus	577
Fetus in Fetu	577
Index	579