

Contents

1. The Radiographic Features of Urinary Tract Disease in the Newborn, Infant, and Child	1
Bilateral Generalized Renal Enlargement	2
Unilateral Diffuse Renal Enlargement in the Newborn	11
Unilateral Asymmetrical Enlargement of the Kidney and the Enlarged Adrenal Gland in the Newborn	16
Bilateral Asymmetrical Enlargement of the Kidneys and Enlarged Adrenal Glands in the Newborn	21
Small Kidneys in the Newborn	23
Unilateral Asymmetrical Enlargement of the Kidney and Adrenal Gland in the Infant and Child	26
Unilateral Symmetrical Enlargement of the Kidney in the Infant and Child	30
Bilateral Renal Enlargement in the Infant and Child	39
Diseases Associated With a Prolonged Nephrogram	43
Kidney Calcifications	44
2. Abnormal Abdominal Radiographic Patterns in the Newborn	49
Gastric Distention	49
Duodenal Distention	53
Small Bowel Distention	59
Colonic Distention	66
Pneumoperitoneum	72
Pneumatosis Intestinalis	77
Portal Venous Gas	82
Abnormal Abdominal Calcifications	83
3. Abnormal Abdominal Radiographic Patterns in the Infant and Child	89
Gastric Outlet Obstruction (Gastric Distention)	89
Duodenal Distention	93
Small Bowel Distention	102
Dilatation of the Colon	114
Nodular Alterations of the Small Bowel	119
Polypoid Lesions	126
Edema of the Small Bowel	129
Narrowed Bowel	133
Fatty Liver	138
Intra-abdominal Calcification	139

4. General Guidelines and the Systematic Approach for the Radiographic Evaluation of Cardiac Disease • Rica G. Arnon, M.D.	145
Cardiac Status	145
Cyanotic Congenital Heart Disease	155
Acyanotic Cardiomegaly With Increased Pulmonary Blood Flow	166
Acyanotic Cardiomegaly With Normal Pulmonary Blood Flow	171
Acyanotic Congenital Heart Disease With Normal Pulmonary Blood Flow (With or Without Cardiomegaly)	176
5. Radiographic Patterns of Thoracic Diseases in the Newborn • Robert L. Siegle, M.D.	181
Air Space Disease	181
Diseases Which Result in Nonuniform Patterns	188
Diseases Which Result in the Unilaterally Opacified Chest	191
Diseases Associated With Abnormal Air in the Chest	198
Respiratory Distress With Normal Heart and Lungs	208
Where Is the Tube?	212
6. Radiographic Patterns of Thoracic Disease in the Infant and Child • Robert L. Siegle, M.D., and Jack G. Rabinowitz, M.D., F.A.C.R.	219
The Partially or Totally Opacified Lung	219
The Dirty Lung	231
Nodular Thoracic Masses	241
Diseases Which Result in a Micronodular Pattern	251
Abnormal Areas of Radiolucency in the Thorax	255
Diffuse Perihilar Infiltrations	267
Reverse Pulmonary Edema	274
Radiodense, Thickened Pleural Space	275
Upper Respiratory Tract Obstruction	279
7. Systematic Radiographic Evaluation of the Abnormal Skull • Barry Gerald, M.D.	285
Single Radiolucent Defects of the Skull	285
Multiple Radiolucent Defects of the Skull	293
Sclerotic Areas of the Skull	297
Intracranial Calcification	299
Abnormal Contour of the Skull	306
Abnormal Intracranial Volume	309
Increased Thickness of the Skull	313
8. Systematic Radiographic Evaluation of the Abnormal Spine • Barry Gerald, M.D.	315
Malformations of the Vertebral Column	315
Abnormal Curvature of the Spine	321
Sclerotic Lesions of the Vertebral Body	325
Lytic Defects of the Vertebral Body	327
Decreased Vertebral Body Height	329
Increased Vertebral Body Height	332
Abnormalities of the Intervertebral Disc	334
Abnormalities of the Neural Arch	337

9. Radiographic Features of Joint Effusions and the Underlying Diseases • <i>Louis S. Parvey, M.D.</i>	343
General Comments	343
Differential Diagnosis	343
10. Systematic Radiographic Evaluation of the Skeleton <i>Louis S. Parvey, M.D., Jack G. Rabinowitz, M.D., F.A.C.R., Jenő I. Sebes, M.D., and Daniel Kirk Westmoreland, M.D.</i>	355
Periosteal Reaction	355
Solitary Osteolytic Lesions	368
Solitary Sclerotic Lesions of Bone	374
Multiple Osteolytic Lesions	386
Multiple Sclerotic Lesions	398
Osteopenia	412
Metaphyseal Abnormalities	427
Epiphyseal Abnormalities	452
Short Bones and Dwarfism	474
Radial Dysplasia	486
Body Asymmetry	486
Fractures in the Newborn	490
Index	499