

Contents

Color figures follow page x.

1 Chromosomes

- 1.1 Triploidy, 1
- 1.2 Trisomy 13, 4
- 1.3 Trisomy 18, 7
- 1.4 Trisomy 21 DOWN SYNDROME, 11
- 1.5 Turner Syndrome, 15

2 Central Nervous System

- 2.1 Agenesis of the Corpus Callosum (ACC), 17
- 2.2 Anencephaly, 20
- 2.3 Aqueductal Stenosis, 23
- 2.4 Arachnoid Cyst, 26
- 2.5 Caudal Aplasia/Dysplasia (REGRESSION), 28
- 2.6 Cranial Tumors Other Than Intracranial Teratoma, 30
- 2.7 Craniosynostosis, 33
- 2.8 Dandy-Walker Malformations, 39
- 2.9 Diastematomyelia, 42
- 2.10 Encephalocele, 45
- 2.11 Holoprosencephaly, 49
- 2.12 Hydranencephaly, 53
- 2.13 Iniencephaly, 55
- 2.14 Intracranial Hemorrhage, 57
- 2.15 Intracranial Teratoma, 59
- 2.16 Microcephaly, 62
- 2.17 Porencephaly and Schizencephaly, 64
- 2.18 Spinal Dysraphism (MYELOMENINGOCELE, MYELOSCHISIS, MENINGOCELE), 67
- 2.19 Vein of Galen Malformation, 72

3 Cardiac Entities

- 3.1 Transposition of the Great Arteries, 75
- 3.2 Tetralogy of Fallot, 78
- 3.3 Ebstein's Anomaly, 82
- 3.4 Tricuspid Valve Atresia, 85
- 3.5 Critical Valvular Pulmonary Stenosis and Pulmonary Atresia, 88
- 3.6 Critical Valvular Aortic Stenosis, 92
- 3.7 Hypoplastic Left Heart Syndrome, 96
- 3.8 Aortic Coarctation, 100

- 3.9 Ventricular Septal Defect, 103
- 3.10 Atrioventricular Canal Defects (ENDOCARDIAL CUSHION DEFECT), 106
- 3.11 Truncus Arteriosus, 109
- 3.12 Double-Inlet Ventricle, 112
- 3.13 Double-Outlet Right Ventricle, 115
- 3.14 Cardiac Arrhythmias: Tachycardia and Extrasystoles, 118
- 3.15 Cardiac Arrhythmias: Bradycardia (INCLUDING BLOCKED PREMATURE BEATS), 123
- 3.16 Hypertrophic Cardiomyopathy, 127
- 3.17 Heterotaxy Syndrome (ASPLENIA AND POLYSPLENIA), 130
- 3.18 Ectopia Cordis, PENTALOGY OF CANTRELL, 133

4 The Genitourinary System

- 4.1 Adrenal Hematoma, 136
- 4.2 Exstrophy of the Bladder, 138
- 4.3 Cloacal Exstrophy, 140
- 4.4 Hydronephrosis (URETEROPELVIC JUNCTION, OBSTRUCTION AND REFLUX), 143
- 4.5 Hydrocolpos, Hydrometrocolpos, 147
- 4.6 Autosomal Recessive Polycystic Kidney Disease (INFANTILE POLYCYSTIC KIDNEY DISEASE), 150
- 4.7 Mesoblastic Nephroma, 153
- 4.8 Multicystic (DYSPLASTIC) Kidney, 155
- 4.9 Neuroblastoma, 158
- 4.10 Ovarian Cysts, 161
- 4.11 Posterior Urethral Valves (PUV), 164
- 4.12 Renal Agenesis, 168
- 4.13 Sacrococcygeal Teratoma, 171
- 4.14 Sirenomelia, 175
- 4.15 Ureterocele, 178

5 The Chest

- 5.1 Cystic Adenomatoid Malformation of the Lung, 180
- 5.2 Diaphragmatic Hernia, 184
- 5.3 Esophageal Atresia, Tracheal Atresia, Tracheoesophageal Fistula, 188
- 5.4 Pleural Effusion (FETAL HYDROTHORAX), 191

- 5.5 Pulmonary Sequestration, 193
- 5.6 Tracheal/Laryngeal Atresia or CHAOS (CONGENITAL HIGH AIRWAY OBSTRUCTION SYNDROME), 197

6 The Gastrointestinal System

- 6.1 Anal Atresia (IMPERFORATE ANUS, ANORECTAL MALFORMATION), 200
- 6.2 Duodenal Atresia, 203
- 6.3 Gastrointestinal Atresia or Stenosis, 206
- 6.4 Gastroschisis, 209
- 6.5 Hepatic Tumors, 213
- 6.6 Meconium Cyst (MECONIUM PERITONITIS), 216
- 6.7 Meconium Ileus, 219
- 6.8 Omphalocele, 221

7 Neck and Face

- 7.1 Cleft Lip and Palate, 225
- 7.2 Cystic Hygroma, 230
- 7.3 Facial Asymmetry (GOLDENHAR'S SYNDROME) (HEMIFACIAL MICROSOMIA; OCULO-AURICULO-VERTEBRAL DYSPLASIA), 233
- 7.4 Pierre Robin Sequence, 239
- 7.5 Thyroid Enlargement/Goiter, 242
- 7.6 Treacher Collins Syndrome (MANDIBULOFACIAL DYSOSTOSIS), 244

8 Skeletal Abnormalities

- 8.1 Achondrogenesis, 248
- 8.2 Achondroplasia, 251
- 8.3 Amniotic Band Syndrome, 255
- 8.4 Arthrogryposis, 258
- 8.5 Camptomelic Dysplasia, 261
- 8.6 Club and Rocker-Bottom Feet (VERTICAL TALUS), 263
- 8.7 Diastrophic Dysplasia, 267
- 8.8 Focal Femoral Hypoplasia, 270
- 8.9 Jeune's Thoracic Dystrophy (ASPHYXIATING THORACIC DYSTROPHY), 273
- 8.10 Klippel-Trenaunay-Weber (KTW) Syndrome, 276
- 8.11 Limb-Body Wall Complex (BODY STALK COMPLEX, CYLLOSOMA), 279
- 8.12 Multiple Pterygium Syndrome, 282
- 8.13 Osteogenesis Imperfecta, 285
- 8.14 Polydactyly, 289
- 8.15 Radial Ray Problems; Radial Ray Aplasia/Hypoplasia, 291
- 8.16 Thanatophoric Dwarfism (DYSPLASIA), 293

9 Infections

- 9.1 Cytomegalic Inclusion Disease, 296
- 9.2 Parvovirus (FIFTH DISEASE), 299
- 9.3 Congenital Syphilis, 301
- 9.4 Toxoplasmosis, 303
- 9.5 Varicella Infection (VARICELLA-ZOSTER VIRUS), 306

10 Drugs

- 10.1 Fetal Alcohol Syndrome, 308
- 10.3 Anti-Seizure Drugs (PHENYTOIN, CARBAMAZEPINE, VALPROIC ACID, AND PHENOBARBITAL), 310
- 10.4 Illegal Drugs (COCAINE, HEROIN), 312

11 Syndromes

- 11.1 Beckwith-Wiedemann Syndrome, 314
- 11.2 Deletion 22q11.2 Syndrome (DIGEORGE SYNDROME, VELOCARDIOFACIAL SYNDROME, SHPRINTZEN SYNDROME), 317
- 11.3 Fryns Syndrome, 320
- 11.4 Meckel-Gruber Syndrome (DYSENCEPHALIA SPLANCHNOCYSTICA), 322
- 11.5 Pena-Shokeir Phenotype (FETAL AKINESIA/HYPOKINESIA SEQUENCE), 325
- 11.6 Smith-Lemli-Opitz Syndrome, 327
- 11.7 Tuberous Sclerosis, 330
- 11.8 VACTERL Association, 333

12 Twins

- 12.1 Intrauterine Growth Restriction or Retardation (IUGR) in Twins, 335
- 12.2 Acardiac Twin (ACARDIAC MONSTER; HOLO-ACARDIUS) Twin Reversed, Arterial Perfusion Sequence, 337
- 12.3 Conjoined Twins, 339
- 12.4 Monoamniotic, Monochorionic Twins, 344
- 12.5 Stuck Twin, 347
- 12.6 Twin-to-Twin Transfusion (TTTS), 350

13 Miscellaneous Abnormalities

- 13.1 Chorioangioma, 353
- 13.2 Nonimmune Hydrops Fetalis, 355
- 13.3 Rhesus Incompatibility (RED BLOOD CELL ALLOIMMUNIZATION), 358

14 Abnormal Sonographic Findings

- 14.1 Amniotic Membranes, 360
- 14.2 Cord Cyst, 363
- 14.3 Intrauterine Growth Restriction (IUGR), 366
- 14.4 Macrosomia, 369
- 14.5 Oligohydramnios, 371
- 14.6 Polyhydramnios, 373

Appendices

- 1 Differential Diagnoses of Abnormal in Utero Sonographic Findings, 375
- 2 Sonographic Features of Less Common Fetal Abnormalities, 387

Index, 393