

Pathology-Based Diagnoses

Congenital Malformations

Congenital Malformations Overview

Chiari Malformations

Chiari 1 Malformation

Chiari 2 Malformation

Chiari 3 Malformation

Hindbrain Malformations

Dandy-Walker Continuum

Rhombencephalosynapsis

Unclassified Cerebellar Dysplasias

Molar Tooth Malformations (Joubert)

Cerebellar Hypoplasia

Disorders of Diverticulation/Cleavage

Holoprosencephaly

Syntelencephaly (Middle Interhemispheric Variant)

Septo-Optic Dysplasia

Commissural Abnormalities

Malformations of Cortical Development

Congenital Microcephaly

Congenital Muscular Dystrophy

Heterotopic Gray Matter

Polymicrogyria

Focal Cortical Dysplasia

Lissencephaly

Schizencephaly

Hemimegalencephaly

Familial Tumor/Neurocutaneous Syndromes

Neurofibromatosis Type 1, Brain

Neurofibromatosis Type 2, Brain

von Hippel-Lindau Syndrome

Tuberous Sclerosis Complex

Sturge-Weber Syndrome

Meningioangiomas

Basal Cell Nevus Syndrome

Hereditary Hemorrhagic Telangiectasia

Encephalocraniocutaneous Lipomatosis

Neurocutaneous Melanosis

Aicardi Syndrome

Li-Fraumeni Syndrome

Schwannomatosis

Turcot Syndrome

Ataxia-Telangiectasia

PHACES Syndrome

Trauma

Introduction to CNS Imaging, Trauma

Primary Effects of CNS Trauma

Scalp and Skull Injuries

Missile and Penetrating Injury

Epidural Hematoma, Classic

Epidural Hematoma, Variant

Acute Subdural Hematoma

Subacute Subdural Hematoma

Chronic Subdural Hematoma

Traumatic Subarachnoid Hemorrhage

Cerebral Contusion

Diffuse Axonal Injury

Subcortical Injury

Pneumocephalus

Abusive Head Trauma

Secondary Effects of CNS Trauma

Intracranial Herniation Syndromes

Posttraumatic Brain Swelling

Traumatic Cerebral Ischemia/Infarction

Brain Death

Second Impact Syndrome

Traumatic Cerebrovascular Injury

Traumatic Carotid Cavernous Fistula

Chronic Traumatic Encephalopathy

Subarachnoid Hemorrhage and Aneurysms

Subarachnoid Hemorrhage & Aneurysms Overview

Subarachnoid Hemorrhage

Aneurysmal Subarachnoid Hemorrhage

Perimesencephalic Nonaneurysmal SAH

Convexal Subarachnoid Hemorrhage

Superficial Siderosis, Classical

Superficial Siderosis, Cortical

Aneurysms

Saccular Aneurysm

Pseudoaneurysm

Vertebrobasilar Dolichoectasia

ASVD Fusiform Aneurysm

Non-ASVD Fusiform Aneurysm

Blood Blister-Like Aneurysm

Stroke

Stroke Overview

Nontraumatic Intracranial Hemorrhage

Evolution of Intracranial Hemorrhage

Spontaneous Nontraumatic Intracranial Hemorrhage

Hypertensive Intracranial Hemorrhage

Remote Cerebellar Hemorrhage

Germinal Matrix Hemorrhage

Germinal Matrix Hemorrhage (not using)

Critical Illness-Associated Microbleeds

Atherosclerosis and Carotid Stenosis

Intracranial Atherosclerosis

Extracranial Atherosclerosis

Arteriolosclerosis

Nonatheromatous Vasculopathy

Aberrant Internal Carotid Artery

Persistent Carotid Basilar Anastomoses

Sickle Cell Disease, Brain

Moyamoya

Primary Arteritis of the CNS

Miscellaneous Vasculitis

Reversible Cerebral Vasoconstriction Syndrome

Vasospasm

Systemic Lupus Erythematosus

Cerebral Amyloid Disease

Cerebral Amyloid Disease, Inflammatory

CADASIL

Behçet Disease

Susac Syndrome

Fibromuscular Dysplasia

Cerebral Ischemia and Infarction

Hydranencephaly

White Matter Injury of Prematurity

Neonatal Hypoxic Ischemic Injury

Adult Hypoxic Ischemic Injury

Hypotensive Cerebral Infarction

Childhood Stroke

Cerebral Hemiatrophy

Acute Cerebral Ischemia-Infarction

Subacute Cerebral Infarction

Chronic Cerebral Infarction

Multiple Embolic Cerebral Infarctions

Fat Emboli Cerebral Infarction

Cerebral Embolism, Air

Lacunar Infarction

Cerebral Hyperperfusion Syndrome

Dural Sinus Thrombosis

Cortical Venous Thrombosis

Deep Cerebral Venous Thrombosis

Dural Sinus and Aberrant Arachnoid Granulations

Vascular Malformations

Vascular Malformations Overview

CVMs With AV Shunting

Arteriovenous Malformation

Dural AV Fistula

Pial AV Fistula

Vein of Galen Aneurysmal Malformation

Cerebral Proliferative Angiopathy

CVMs Without AV Shunting

Developmental Venous Anomaly

Sinus Pericranii

Cavernous Malformation

Capillary Telangiectasia

Neoplasms

Neoplasms Overview

Astrocytic Tumors, Infiltrating

Diffuse Astrocytoma

Anaplastic Astrocytoma

Glioblastoma

Gliomatosis Cerebri Imaging Pattern

Diffuse Midline Glioma, H3K27M-Mutant

Astrocytic Tumors, Localized

Pilocytic Astrocytoma

Pleomorphic Xanthoastrocytoma

Anaplastic Pleomorphic Xanthoastrocytoma

Subependymal Giant Cell Astrocytoma

Oligodendroglial and Miscellaneous Tumors

Oligodendroglioma, IDH-Mutant and 1p/19q Codeleted

Anaplastic Oligodendroglioma, IDH-Mutant and 1p/19q Codeleted

Astroblastoma

Chordoid Glioma of 3rd Ventricle

Angiocentric Glioma

Ependymal Tumors

Subependymoma

Ependymoma

Ependymoma, RELN Fusion-Positive

Choroid Plexus Tumors

Choroid Plexus Papilloma

Atypical Choroid Plexus Papilloma

Choroid Plexus Carcinoma

Neuronal and Mixed Neuronal-Glial Tumors

Ganglioglioma

Desmoplastic Infantile Tumors

DNET

Central Neurocytoma

Extraventricular Neurocytoma

Cerebellar Liponeurocytoma

Papillary Glioneuronal Tumor

Rosette-Forming Glioneuronal Tumor

Multinodular and Vacuolating Tumor of Cerebrum

Diffuse Leptomeningeal Glioneuronal Tumor

Pineal Parenchymal Tumors

Pineocytoma

Pineal Parenchymal Tumor of Intermediate Differentiation

Pineoblastoma

Papillary Tumor of Pineal Region

Embryonal and Neuroblastic Tumors

Medulloblastoma

Other Embryonal Tumors

Atypical Teratoid-Rhabdoid Tumor

Metastatic Neuroblastoma

Tumors of Cranial/Peripheral Nerves

Nonvestibular Schwannoma

Vestibular Schwannoma

Neurofibroma

Blood Vessel and Hemopoietic Tumors

Diffuse Large B-Cell Lymphoma

Immunodeficiency Associated CNS Lymphoma

Intravascular (Angiocentric) Lymphoma

Leukemia

Histiocytic Tumors

Langerhans Cell Histiocytosis, Skull and Brain

Erdheim-Chester Disease

Rosai-Dorfman Disease

Histiocytoses, Miscellaneous

Germ Cell Tumors

Germinoma

Teratoma

Miscellaneous Malignant Germ Cell Neoplasms

Metastatic Tumors

Parenchymal Metastases

Miscellaneous Intracranial Metastases

Metastases Intracranial Lymphoma

Tumor-Like Conditions

Ecchordosis Physaliphora

Calcifying Pseudoneoplasm of Neuraxis (CAPNON)

Lipoma

Primary Nonneoplastic Cysts

Primary Nonneoplastic Cysts Overview

Arachnoid Cyst

Colloid Cyst

Dermoid Cyst

Epidermoid Cyst

Neuroglial Cyst

Periventricular Cyst

Choroid Fissure Cyst

Hippocampal Sulcus Remnant Cysts

Enlarged Perivascular Spaces

Pineal Cyst

Choroid Plexus Cyst

Ependymal Cyst

Porencephalic Cyst

Neurenteric Cyst

Nonneoplastic Tumor-Associated Cysts

Infectious, Inflammatory, and Demyelinating Disease

CNS Infectious Disease Overview

Congenital/Neonatal Infections

TORCH Infections, Overview

Congenital CMV

Congenital HIV

Neonatal Herpes Encephalitis

Acquired Infections

Group B Streptococcal Meningitis

Citrobacter Meningitis

Meningitis

Abscess

Ventriculitis

Empyema

Herpes Encephalitis

Miscellaneous Encephalitis

West Nile Virus Encephalitis

HHV-6 Encephalitis

Cerebellitis

Rasmussen Encephalitis

Subacute Sclerosing Panencephalitis

Tuberculosis

Neurocysticercosis

Hydatid Disease

Amebiasis

Cerebral Malaria

Miscellaneous Parasites

Fungal Diseases

Rickettsial Diseases

Lyme Disease

Acquired HIV Encephalitis

Acquired Toxoplasmosis

Acquired CMV

Cryptococcosis

Progressive Multifocal Leukoencephalopathy (PML)

Miscellaneous JC Virus Infection

Immune Reconstitution Inflammatory Syndrome (IRIS)

HIV/AIDS, Miscellaneous Manifestations

Zika Virus Infection

Viral Hemorrhagic Fevers

Inflammatory and Demyelinating Disease

Multiple Sclerosis

ADEM

AHLE

Neuromyelitis Optica Spectrum Disorders

Autoimmune Encephalitis

Guillain-Barré Spectrum Disorders

CIDP

CLIPPERS

Inherited Metabolic/Degenerative Disorders

Approach to Normal Brain Development and Metabolic Disorders

Normal Variants

Hypomyelination

Mitochondrial Disorders

Mitochondrial Encephalopathies

Lysosomal Disorders

Mucopolysaccharidoses

Gangliosidosis (GM2)

Metachromatic Leukodystrophy

Globoid Cell Leukodystrophy

Fabry Disease

Peroxisomal Disorders

Zellweger Syndrome and Peroxisomal Biogenesis Disorders

X-Linked Adrenoleukodystrophy

Organic and Aminoacidopathies

Maple Syrup Urine Disease

Urea Cycle Disorders

Glutaric Aciduria Type 1

Canavan Disease

Alexander Disease

Miscellaneous Organic/Aminoacidopathies

Miscellaneous

Megalencephaly With Leukoencephalopathy and Cysts

Neurodegeneration With Brain Iron Accumulation (NBIA)

PKAN

Huntington Disease

Wilson Disease

Acquired Toxic/Metabolic/Degenerative Disorders

Acquired Toxic/Metabolic Disorders Overview

Toxic, Metabolic, Nutritional, Systemic Diseases With CNS Manifestations

Pediatric Hypoglycemia

Adult Hypoglycemia

Kernicterus

Hyperglycemia

Thyroid Disorders

Parathyroid Disorders

Fahr Disease

Alcoholic Encephalopathy

Hepatic Encephalopathy

Uremic Encephalopathy

Hyperthermic Encephalopathy (Heatstroke)

Acute Hypertensive Encephalopathy, PRES

Chronic Hypertensive Encephalopathy

Idiopathic Intracranial Hypertension

Carbon Monoxide Poisoning

Drug Abuse

Methanol Poisoning

Cyanide Poisoning

Metronidazole Toxicity

Gadolinium Deposition

Osmotic Demyelination Syndrome

Radiation and Chemotherapy

Pseudoprogression

Pseudoresponse

Mesial Temporal Sclerosis

Status Epilepticus

Transient Global Amnesia (TGA)

Dementias and Degenerative Disorders

Normal Aging Brain

Alzheimer Disease

Vascular Dementia

Frontotemporal Lobar Degeneration

Dementia With Lewy Bodies

Creutzfeldt-Jakob Disease (CJD)

Parkinson Disease

Multiple System Atrophy

Corticobasal Degeneration

Progressive Supranuclear Palsy

Amyotrophic Lateral Sclerosis (ALS)

Wallerian Degeneration

Crossed Cerebellar Diaschisis

Hypertrophic Olivary Degeneration

Spinocerebellar Ataxia

Fragile X-Associated Tremor/Ataxia (FXTAS)

Anatomy-Based Diagnoses

Ventricles and Cisterns

Ventricles and Cisterns Overview

Normal Variants

Cavum Septi Pellucidi (CSP)

Cavum Velum Interpositum (CVI)

Enlarged Subarachnoid Spaces

Hydrocephalus

Intraventricular Obstructive Hydrocephalus

Extraventricular Obstructive Hydrocephalus

Aqueductal Stenosis

Normal Pressure Hydrocephalus

CSF Shunts and Complications

Corpus Callosum Impingement Syndrome

Sella and Pituitary

Sella and Pituitary Overview

Congenital

Pituitary Anomalies

Tuber Cinereum Hamartoma

Rathke Cleft Cyst

Neoplasms

Pituitary Microadenoma

Pituitary Macroadenoma

Pituitary Apoplexy

Craniopharyngioma

Pituicytoma

Spindle Cell Oncocytoma

Granular Cell Tumor

Miscellaneous

Empty Sella

Pituitary Hyperplasia

Lymphocytic Hypophysitis

Skull, Scalp, and Meninges

Skull, Scalp, & Meninges Overview

Congenital

Congenital Calvarial Defects

Craniosynostoses

Cephalocele

Atretic Cephalocele

Trauma

Leptomeningeal Cyst ("Growing Fracture")

Intracranial Hypotension

Nonneoplastic and Tumor-like Disorders

Intracranial Idiopathic Inflammatory Pseudotumor

IgG4-Related Disease

Fibrous Dysplasia

Paget Disease

Extramedullary Hematopoiesis

Thick Skull

Neurosarcoid

Miscellaneous Histiocytoses

Sebaceous Cyst

Neoplasms

Meningioma

Atypical and Malignant Meningioma

Solitary Fibrous Tumor/Hemangiopericytoma

Miscellaneous Malignant Mesenchymal Tumors

Calvarial Hemangioma

Dura/Venous Sinuses Hemangioma

Myeloma

Skull and Meningeal Metastases