

Intracranial Tumors

- ✿ Brain Tumors
 - ⊙ Cause is unknown
- ✿ Types of Brain Tumors
 - ⊙ Benign-not cancerous
 - ⊙ Malignant- Cancerous
 - Requires aggressive treatment
 - Malignant accounts for more than half of brain tumors
 - ⊙ Primary tumors
 - Originated in the brain, rarely metastasize-remain contained within CNS
 - ⊙ Metastatic or Secondary Tumors- Most common type
 - Originated elsewhere in the body and traveled to the brain via blood.
- ✿ Brain tumors are named for the tissue they originate from:
 - ⊙ Meningiomas-originate in the meningeal tissue, mostly benign
 - ⊙ Acoustic Neuroma- Common, usually benign.
 - ⊙ Pituitary Adenoma- Originates in pituitary gland, usually benign
 - ⊙ Gliomas-originate from astrocytes which support nerve cells
 - Glioblastoma Multiforme-most common type of glioma
- ✿ Gerontologic Considerations
 - ⊙ Higher risk for malignant & primary tumors and vague s/s (? aging vs tumor)
- ✿ Diagnostics
 - ⊙ Neurologic assessment-identify symptoms and nervous system deficits
 - ⊙ Imaging-CT, MRI, and PET
 - ⊙ Tumor tissue biopsy
- ✿ Clinical Manifestations
 - ⊙ Dependent on
 - Size & Location of tumor, also the amount of pressure caused by tumor
 - Frontal Lobe Lesions= Behavior, personality, judgment issues, memory issues
 - Parietal Lobe Lesions= Inability to write, spatial issues, neglect
 - Temporal Lobe Lesions= hallucinations, seizures

- Occipital Lobe Lesions= Vision changes and seizures
- Ⓢ Headaches- may be more severe at night or in morning
- Ⓢ Seizures
- Ⓢ Nausea & Vomiting
- Ⓢ Visual Disturbances- Diplopia, Visual Acuity worsening or peripheral vision loss
- Ⓢ Personality or Mentation Changes/Cognitive issues
 - Angry, childlike, memory loss, inability to problem solve or concentrate
 - Changes in behavior require support from nursing for the family & patient
- ✿ Treatment Options
 - Ⓢ Main goals- Identify tumor type, remove tumor/decrease size, manage ICP
 - Ⓢ May allow for complete or only partial tumor removal depending on type, size, location, and on how tumor infiltrates into brain tissue
 - Ⓢ Craniotomy
 - Burr holes made into skull, flap removed, and tumor excised
 - Risk for postop infection and bleeding
 - Postop cerebral edema is a major concern
 - Ⓢ Radiation
 - Ⓢ Stereotactic Radiosurgery
 - Stereotactic procedures allows for precise access to targeted area, high resolution imaging usually accompanies to aid identification of site
 - Radiosurgery-beam of radiation destroys tumor tissue
 - Less invasive= Less complications
- ✿ Chemotherapy
 - Ⓢ Use alone or in combination with surgery +/-or radiation
 - Ⓢ Must be able to pass blood brain barrier
 - Ⓢ Temozolomide (Temozar)- PO chemo drug able to cross BBB
- ✿ Symptomatic Treatment
 - Ⓢ Headaches- Analgesics
 - Ⓢ Antiepileptics- For seizure activity or prescribed prophylactically
 - Ⓢ Steroids for cerebral edema
- ✿ While treatments have progressed outcomes still remain poor.

☀ Nursing Care

- ⊕ Risk for ineffective cerebral tissue perfusion R/T cerebral edema, Acute Pain: Headache, Self-Care Deficits, Anxiety

Spinal Cord Tumors

☀ Classification

- ⊕ Can occur within the spinal cord itself, the meninges, or vertebrae (Primary)
 - Usually metastatic-commonly from breast, lung, prostate, and kidney (Secondary)
 - Can be extradural (outside the dura of the spinal cord), intradural-medullary (between the spinal cord and dura) or intramedullary (within the spinal cord)

☀ Manifestations

- ⊕ Depend on the tumors location and rate of growth
 - S+S result from mechanical effects of tumor on nerve roots, spinal cord, blood supply
- ⊕ Most common S+S is back pain
 - Radicular pain-results from nerve root compression, worsens with activity
- ⊕ Sensory effects
 - Paresthesia's in extremities progresses upward until reaches tumor level
 - Pain, temperature, and touch can also be effected
- ⊕ Bladder Function
 - Varies from urgency, to retention, then overflow incontinence
- ⊕ Motor effects
 - Can vary from weakness and clumsiness to spastic or flaccid paralysis

☀ Diagnosis

- ⊕ Neuro Exam, X-Ray, MRI , CT, CSF study

☀ Treatment

- ⊕ Surgical resection/removal of the tumor is the preferred treatment method
- ⊕ Radiation and chemotherapy in conjunction with surgery can also be considered

- ☀ Spinal Cord Compression by a tumor is an emergency. Need to relieve ischemia with corticosteroid= dexamethasone