

Brain Abscess: purulent material in the brain - bc purulent material takes up space = ↑ ICP

◦ **Path:** infection of nearby structures such as middle ear, sinuses, teeth

→ intracranial surgery / head trauma

→ bacterial endocarditis, bacteremia

→ pulmonary or abdominal infections

◦ **assessment:**

◦ increased ICP

neuro changes + symptoms

◦ fever, headache

→ will be related to the location of the infected area

◦ paralysis

◦ seizures

◦ muscle weakness, lethargy

◦ **medical management:**

◦ antimicrobials, control of fever

◦ mechanical ventilation

◦ IV fluids, nutritional support

◦ **nursing management:**

◦ assess for altered LOC, changes in sensory + motor functions

◦ I&O, **drain abscess**

◦ cerebral edema management

◦ **diagnostics:**

◦ Labs: WBC, lumbar puncture

◦ CT, MRI, skull radiographs

Brain tumor: growth of abnormal cells (malignant or benign) - 50% malignancy rate

→ most common are **metastatic** from primary site of malignancy (**lung + breast**)

◦ **causes:**

◦ viral infection; head trauma

◦ exposure to radiation, immunosuppression

◦ **assessment:**

◦ headache (most common in **morning** → becomes increasingly severe + occurs more frequently as tumor grows)

◦ vomiting w/o nausea warning

◦ papilledema; double vision

◦ speech difficulty; paralysis

◦ areas of brain can **herniate** + compress + **tissue death** can occur - death from cardiac or respiratory arrest

◦ **diagnostics:**

◦ CT, MRI, brain scan, cerebral angiography

◦ **med management:**

◦ surgery, radiation, chemo - depends on type/location of tumor

◦ craniotomy, craniectomy, gamma-knife radiosurgery