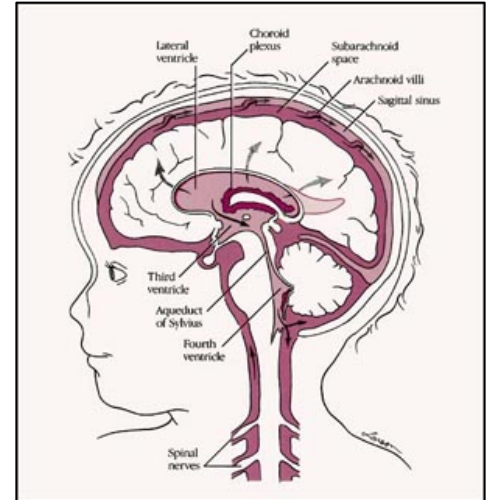


Cerebral Palsy

Anesthetic Pearls: Anesthetic Implications and Management of Cerebral Palsy

Background

Cerebral palsy is a term used to describe a group of disorders caused by a non-progressive lesion of the immature brain that results in abnormal control of motor function. The lesion may occur prenatal, perinatal, or postnatal. There is often moderate to severe mental retardation associated with cerebral palsy but intelligence may be normal even when the patient is unable to express themselves due to other facets of their disease.

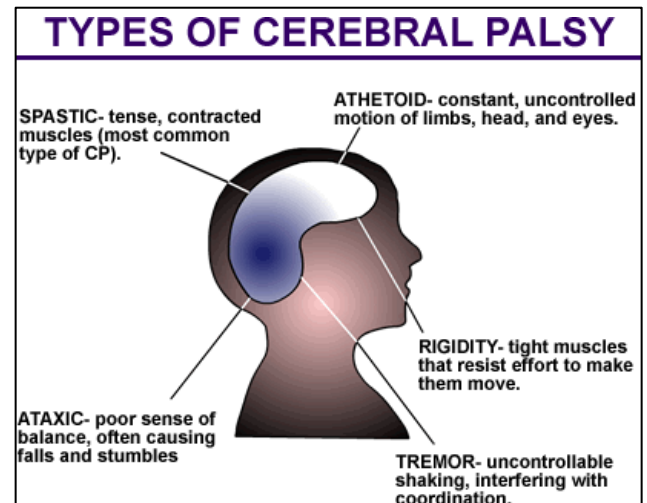


Etiology

- Unknown cause (70-80% of cases)
- Associated with prematurity, cerebral anoxia, and trauma (20-30% of cases)

Clinical Features

1. Epilepsy (30%)
2. Mental retardation / learning disabilities (40-50%)
3. Strabismus (40%)
4. Response to muscle relaxants:
 - Depolarizers – slight hypersensitivity
 - Non-depolarizers – resistance
5. Scoliosis with mild to severe respiratory compromise
6. GERD with significant aspiration risk
7. Hypothalamic dysfunction that increases risk of peri-operative hypothermia
8. Contractures that make positioning & IV access difficult
9. Increased incidence of generalized ligamentous laxity of the cervical spine, atlanto-axial subluxation, and stenosis of the foramen magnum



Cerebral Palsy associated with Prematurity

- A. Bronchopleural dysplasia
- B. Tracheomalacia
- C. Irritable airways

Anesthetic Recommendations

1. Rapid sequence induction +/- cricoid pressure
2. Position with all extremities neutral (difficult secondary to contractures)
3. Expect compromised respiratory function (scoliosis & chronic aspiration)

Always assume that the patient is mentally intact regardless of physical appearance unless documented retardation exists.