

STUDENT NAME _____

DISORDER/DISEASE PROCESS _____ REVIEW MODULE CHAPTER _____

Alterations in Health (Diagnosis)

1. Strokes, also known as cerebrovascular accidents or brain attacks, involve a disruption in the cerebral blood flow secondary to ischemia, hemorrhage, brain attack, or embolism. Classifications of strokes are hemorrhagic and ischemic. (Ischemic strokes are thrombotic or embolic.)

Pathophysiology Related to Client Problem

1. Brain attack
2. Embolism
3. Hemorrhage
4. Disruption in the cerebral blood flow secondary to ischemia

Health Promotion and Disease Prevention

Hypertension, diabetes mellitus, smoking, and other related disorders can increase a client's risk for a stroke.

- Early treatment of hypertension, maintenance of blood glucose within expected range, and refraining from smoking will decrease these risk factors.
- Maintaining a healthy weight and getting regular exercise can also decrease the risk of a stroke.

ASSESSMENT**Risk Factors**

1. Cerebral aneurysm
2. Arteriovenous malformation (AV)
3. Diabetes mellitus
4. Obesity
5. Hypertension
6. Atherosclerosis
7. Hyperlipidemia
8. Hypercoagulability
9. Atrial fibrillation
10. Use of oral contraceptives
11. Smoking
12. Cocaine use

Expected Findings

Some clients report transient manifestations, such as visual disturbances, dizziness, slurred speech, and a weak extremity.

- These manifestations can indicate a transient ischemic attack (TIA), which can be a warning of an impending stroke.
- Antithrombotic medication and/or surgical removal of atherosclerotic plaques in the carotid artery can prevent the subsequent occurrence of a stroke

Laboratory Tests

1. The left cerebral hemisphere is responsible for language, mathematics skills, and analytic thinking
2. The right cerebral hemisphere is responsible for visual and spatial awareness and proprioception.

Diagnostic Procedures

1. A magnetic resonance imaging (MRI)
2. A magnetic resonance angiography
3. A lumbar puncture is used to assess for the presence of blood in the cerebrospinal fluid
4. The Glasgow Coma Scale is used when the client has a decreased level of consciousness or orientation

SAFETY CONSIDERATIONS**PATIENT-CENTERED CARE****Nursing Care**

- Observe affected extremities for injury (bruises and abrasions of the affected hand and arm, hyperflexion of the foot from it falling off of the wheelchair during transport).
- Apply an arm sling if the client is unable to remember to care for the affected extremity.
- Ensure that the foot rest is on the wheelchair and that an ankle brace is on the affected foot.

Therapeutic Procedures

1. Carotid artery angioplasty with stenting (CAS) involves inserting a catheter in the femoral artery and placing a distal/embolic protection device to catch clot debris during the procedure while a stent is being placed in the carotid artery to open a blockage.
2. Carotid endarterectomy is performed to open the artery by removing atherosclerotic plaque.
3. Assess for increased headache, neck swelling, and hoarseness of the throat.
4. Extracranial intracranial bypass is a craniotomy performed to improve cerebral perfusion following a stroke or for clients who have had a TIA that is likely to progress to a stroke.

Medications

1. Assess gag reflex. If the gag reflex is present, give the client a small sip of water to determine if choking occurs.
2. If the client exhibits difficulty managing food or fluids, a speech therapist should do a swallowing evaluation.
3. Begin the client with a prescribed diet and observe closely for choking. Have suction equipment available. Initial feedings should be done by an RN, so appropriate interventions can be taken if choking occurs.
4. Thicker liquids are usually tolerated better than thin liquids. Collaborate with the speech language pathologist and dietitian to find the proper consistency and type of diet.

Client Education

- Instruct the client to dress the affected side first.
- Teach the client how to care for the affected side.
- Use the unaffected hand to pull the affected extremity to midline and out of danger from the wheel of the wheelchair or from hitting or smashing it against a doorway.
- Teach the client to look over the affected side periodically.
- Teach the client's family strategies for eating and give instructions regarding prescribed consistency of liquids and solid foods.
- Instruct the client to sit upright and to flex his head forward when swallowing to decrease the risk of ^{choking}choking.

Interprofessional Care

1. Speech and language therapists can be consulted for language therapy and swallowing exercises.
2. Physical therapy can be consulted for assistance with reestablishment of ambulation with or without assistive devices (single or quad cane, walker) or wheelchair support.
3. Occupational therapy can be consulted for assistance with reestablishment of partial or full function of the affected hand and arm.
4. Social services can be consulted to make arrangements for rehabilitation services and temporary placement on a skilled rehabilitation unit or extended care facility during provision of these services.

Complications

- Dysphagia can result from neurological involvement of the cranial nerves that innervate the face, tongue, soft palate, and throat. As a result, the client's risk of aspiration is great.
- Not all clients who have experienced a stroke have dysphagia, but all should be evaluated prior to reestablishing oral nutrition and hydration.