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Subarachnoid Hemorrhage caused by a Ruptured Aneurysm
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Introduction
Subarachnoid hemorrhage is a type of stroke that can be caused by a ruptured aneurysm, arteriovenous malformation, or trauma, and it can be life threatening. It is a hemorrhage that appears within the subarachnoid space.

Researchers have found that one-third of the patients will survive this type of stroke (Serrone, J.). Many Patients experience symptoms of a sudden onset of a severe headache and giving the patient specific medications.

• Subarachnoid hemorrhage rupture commonly occurs from uncontrolled high blood pressure, heavy alcohol abuse, smoking, cocaine, and inherited conditions that cause weakening of blood vessels.
• Other causes of a subarachnoid hemorrhage include head traumas and brain infections.
• Subarachnoid hematomas may be spontaneous or traumatic.
• Saccular aneurysms occur at the bifurcation of the large to medium size intracranial arteries (Bekelis, K.). When a brain aneurysm ruptures, it causes bleeding into the compartment that surrounds the brain, the subarachnoid space, and is therefore known as a subarachnoid hemorrhage.
• Blood can get into the cerebral spinal fluid which can cause an increase pressure on the brain.
• Blood from the torn aneurysm can cause blood to get in the cerebral spinal fluid circulation. This can lead to fluid build up around the brain known as hydrocephalus.
• Hydrocephalus is abnormal build up of cerebral spinal fluid in the ventricles of the brain.
• The blood can irritate, and damage brain skills, which can lead to problems with body functions and skills.

Pathophysiology

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Pathophysiological Significance

• Health care providers need to be aware of the risk factors, pathophysiology, diagnostic criteria, and early treatment for subarachnoid hemmorhages.
• By knowing the pathophysiology and signs and symptoms of a subarachnoid hemorrhage health care providers can provide diagnostics and detection of the aneurysm to help maintain effective tissue perfusion in the brain.
• Time is brain, early detection and treatment will lead to better outcomes and quality of life.

Implications for Nursing

Diagnoses will include:
• The patient will undergo a CT scan to help identify the source of the aneurysms rupture as well as hydrocephalus.
• Lumbar Puncture
• Cerebral Angiography, which will define the source of the bleed.
• The nurse will provide care that will maintain effective tissue perfusion and prevent further complications.
• Further complications may include, re-bleeding, hydrocephaus, intraventricular hemorrhage, increased intracranial pressure, seizures, and cerebral vasospasm.
• Medical management includes:
  • Surgical management- which includes clipping and coiling the aneurysm (Bekelis, K).
  • Giving a calcium channel blocker known as Nimodipine to prevent vasospasms in the brain (Hockel, K).
  • Controlling blood pressure
  • Triple H Therapy- Hemodilution, Hypertension, and Hypervolemia.
  • Performance of transcranial Dopplers daily to check for spams.

Conclusion

• A subarachnoid hemorrhage should be suspected in somebody with a sudden onset of a severe headache.
• The only way to prevent this condition from happening is identify potential problems with the brain.
• Prognosis of a subarachnoid hemorrhage is better with early management.
• Treatment is not guaranteed some people do not make it even after the most aggressive medical treatment.
• The early you seek emergent care the better your chances re for surviving.
• Time is Brain!

References