

Brain Stroke Attack

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Key Points

- If blood to the brain is interrupted for more than a few seconds, brain cells can die
- Stroke is also called a brain attack

A stroke is an interruption of the blood supply to any part of the brain. It is also called brain attack. If flow of blood is stopped for more than a few seconds and the brain cannot get blood or oxygen, brain cells can die, and the functions controlled by that specific area of brain are lost.

Types of strokes:

There are two types of strokes that have been encountered yet.

Ischemic stroke and hemorrhagic stroke

An ischemic stroke is caused by the coagulation of blood that blocks an artery and breaks the flow of blood to the part of brain being supplied by that artery.

A hemorrhagic stroke is caused by the cut off or a break or "blowout" of a blood vessel in the brain.

Among these two types the most commonly found is the ischemic stroke.¹

'Brain attack' is a latest term to describe the acute presentation of stroke which stresses on the need for urgent action.²

Symptoms of stroke:

- Sudden paralysis, numbness or weakening of face, leg or arm, more specifically on just one side of body
- Difficulty in speaking, understanding the situations or words.
- Unanticipated difficulty in seeing with one or both eyes.

- Difficulty in walking, dizziness, loss of balance and coordination.
- Sudden severe headache because of unknown cause.¹

Patient understanding of a stroke is important, as every second after vessel blockage results in more brain tissue death. The National Stroke Association recommends remembering the term F.A.S.T. That stands for Face, Arms, Speech and Time.

Anyone can have a stroke even if they are not ill or are feeling any sickness. Stroke can be prevented by reducing risk factors as much as possible.

High blood pressure, high cholesterol, diabetes, atrial fibrillation, smoking, Alcohol usage, physical inactivity or obesity are the main risk factor of acute brain stroke. One should try to reduce these factors as much as possible.

Some other factors that might be the cause of acute stroke are age, family history, genes or race and personal history.

Treatment:

Acknowledgment and awareness of stroke is first and foremost important step in effective treatment of the stroke.

Intravenous tissue plasminogen activator and mechanical devices are being used for the treatment of stroke.

Stroke treatment is done to prevent the inadequate blood supply to the brain, to maintain proper

functioning of the brain and prevent more neurons to die and help brain to recover from it. Use of aspirin helps in acute brain stroke as it prevents the blood from clotting and helps in blood thinning. Heparin, prevents the blood from clotting, but it doesn't actually make the blood thin.

Usage of intravenous thrombolysis

Usage of intravenous thrombolysis also called fibrinolysis therapy is also being used nowadays for ischemic stroke. It is the process of breakdown of blood clots by using medications. Increased use of this treatment is helpful in preventing severe problems caused by acute stroke. It is helpful if given within 3 hours of stroke.³

Surgical hemicraniectomy is a surgical procedure in which a large flap of skull is removed to give space for the swollen brain to bulge, so the pressure is reduced and should be considered in patients with malignant cerebral edema. The blood vessels don't get compressed and prevention of acute stroke can be done. We should admit the patient in hospital so they are provided proper care and educating the patient about their condition.⁴

Common mistakes done are due to conditions that mimic stroke. These conditions include seizures, brain tumours, drug toxicity etc. Their symptoms overlap with each other. However, some clinical and neurological characteristics have been identified to help differentiate stroke mimics from true stroke.⁵

Reference:

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