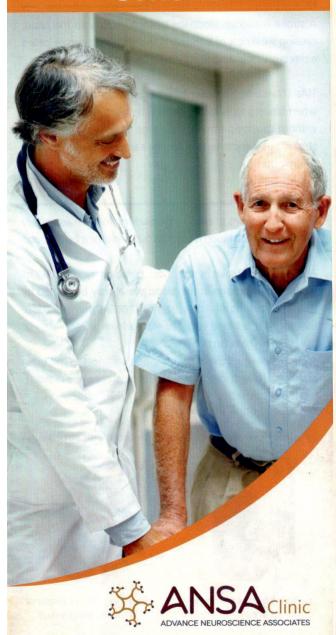
STROKE



ABOUT STROKE

A stroke is sudden stoppage of blood supply to the brain, causing weakness of body parts. A stroke may also be called a cerebral vascular accident (CVA), paralysis or hemiplegia.

TIAs (Transient Ischemic Attacks) are warning symptoms, when blood supply to the brain is reduced for a short time without causing permanent damage. It is also called "ministroke"; as symptoms may be the same; but recoverable in few minutes.

CAUSES

Two main reasons of blood, not reaching to brain are: artery which carries the blood is blocked (Ischemic) or it bursts open (Haemorrhage).

An **Ischemic Stroke** is the most common type (80%) of stroke. The blockage in the blood vessel may be caused by severe narrowing of artery (stenosis) or a thrombus (clot), that forms in a blood vessel or travels from another part of the body, to the brain or neck.

A **Hemorrhagic Stroke** occurs when an artery in the brain breaks and bleeds into the brain. The most common reason is high blood pressure.

Ischemic stroke



A clot blocks blood flow to an area of the brain

Hemorrhagic stroke



Bleeding occurs inside or around brain tissue

Any of the following factors can increase the risk of a stroke:

- High blood pressure
- Diabetes
- High cholesterol level
- Smoking
- Obesity (Being Overweight)
- Heart disease like valve disease, rhythm disorder, cardiomyopathy
- Hardening of the arteries (atherosclerosis, or fatty cholesterol deposits on artery walls)

SYMPTOMS

The symptoms of a stroke differ, depending on the part of the brain affected and the extent of the damage.

Symptoms following a stroke come on suddenly and may include:

- Weakness, numbness, or tingling in the face, arm, or leg, especially on one side of the body.
- · Difficulty in walking, dizziness, loss of balance.
- · Inability to speak or difficulty speaking or understanding.
- Trouble seeing with one or both eyes, or double vision.
- Confusion or loss of consciousness.

DIAGNOSIS

The following tests may be done:

- Blood Tests
- Brain scan, Such as a CT scan or MRI
- Carotid Ultrasound or Angiography (CT Angio, MR Angio or DSA) to look at blood flow in the carotid arteries in the neck
- Electrocardiogram (ECG) and 2D Echo, to see how well your heart is working

CT SCAN

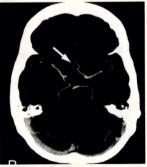


Ischemic stroke

Hemorrhagic stroke

CT ANGIOGRAPHY





Extracranial

Intracranial

TREATMENT

• Immediate: It is important to get to the hospital as soon as possible if you suspect a stroke. Many hospitals are now treating ischemic strokes with clot-dissolving medicines. These medicines can cause the symptoms to improve quickly. They can prevent long-term disability or death. This treatment works only if the medicines are given within the first 3 to 6 hours after the stroke began.

- 24-72 hours: All Strokes require careful observation, especially in the first 1-3 days. In addition to bed rest, you will probably need an IV line and oxygen. Along with specific targeted drugs, underlying medical problems that may have caused the stroke, such as high blood pressure or heart rhythm problems, will be treated.
- Rehabilitation: It should start as early as possible. Most stroke rehab programs last several weeks to several months after you leave the hospital. The program consists of physical therapy, occupational therapy and, if needed, speech therapy.
- Mechanical Thrombectomy: In case of ischemic stroke, along with pharmacological clot dissolving drugs, newer mechanical treatments may be used to directly disrupting clot or retrieving the clot that is occluding the artery. This thrombolytic devices can remove a clot in a matter of minutes. The most recently developed devices, i.e.; retrievable stents or stentrievers, are showing very good recanalization rates and better patient outcomes

PREVENTION

- If you have high blood pressure & diabetes it is essential that you control it with medicine, on a very regular basis with close monitoring.
- Antiplatelet medications like aspirin or clopidogrel are required in case of ischemic stroke, for most of the patients, probably for life time.
- · Statins are lipid lowering drugs, often prescribed for stroke patients for secondary prevention.
- · If you have an irregular or fast heart rate, you may need to

take medicine such as warfarin.

- If you smoke, quit.
- Exercise every day according to your doctor's recommendations.
- · Keep a healthy weight.

For Hemorrhagic Stroke or bleeding inside the brain:

- Control of blood pressure in initial period is of paramount importance.
- In initial 3 5 days, reducing swelling inside the brain is essential, as it may further deteriorate neurological problem.

SURGERY

Decompression: If large stroke or swelling secondary to stroke causes significant raise in intracranial pressure, a procedure to open the skull and/or remove the blood may be carried out if first 48 to 72 hrs.

Carotid Endarterectomy: If the ischemic stroke is due to a blocked artery in the neck (carotid artery), a surgery may be performed to re-establish the flow and reduce the risk of recurrence of stroke.

Carotid Stenting: As an alternative, in the carotid artery blockade, stent placement is also an optional RX.

ACT FAST

EVERY STROKE IS AN EMERGENCY TIME IS BRAIN





Ask the person to smile: Dose his face look uneven or droop on one side?

Hold out both arms with eves closed: Dose the person have weakness or shift down his one arm?



Speech

Face



Report If understanding or content of speech is abnormal OR Slurring is present.

Does his or her speech sound strange? Have he trouble speaking clearly?

If you notice any of these stroke signs. You need to act FAST





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