

HEMIPLEGIA - HOMOEOPATHIC APPROACH

INTRODUCTION-

Hemiplegia is loss of the ability to move and/or feel one side of the body. Hemiplegia can occur on the entire left or right side of the body. Hemiplegia can also occur on one specific part of the body (such as the face) on the right or left side. The word "hemiplegia," comes from the Greek word "hemi," meaning "half," and the word "plege," meaning "stroke." Put the two words together and you have "half stroke," referring to half of the body. A stroke is a burst artery (a type of blood vessel that carries blood away from the heart) or a blockage of an artery in the brain. Because strokes sometimes lead to loss of movement and/or sensation in parts of the body, the word "plegia" is used to refer to such conditions. Strokes and other types of brain damage typically lead to hemiplegia. Other types of "plegias" include quadriplegia, diplegia and paraplegia.

Although hemiplegia may occur due to various causes, but the most common cause that leads to hemiplegia is stroke. According to a study of WHO in twelve countries it has been found that the incidence of stroke rate ranges from 0.2 to 2.5 per 1000 of population per year. The number is quite significant. If the condition is not well managed it can lead to a large number of disabilities.

LITERATURE REVIEW

EPIDEMIOLOGY :-

According to a study of WHO in twelve countries it has been found that the incidence of stroke rate ranges from 0.2 to 2.5 per 1000 of population per year.

Incidence rates in Western European countries are slightly higher (1.5/1000) but several European countries and Japan have rates of 3/1000 based partly on environmental and dietary factors and smoking habits.

Incidence and death rates for stroke are higher among blacks than whites in the United States.

The condition affects both the sexes in a similar manner. There is a strikingly higher incidence (20 to 30 Per 1000) for those over 75 years of age.

In India, analysis of major data from major urban university hospitals suggests that nearly 2 % of all hospitalized cases are due to strokes. It has also been found that 4.5% of medical and 20% of neurological admissions are due to strokes.

A random survey showed the prevalence rate for hemiplegia in South India to be 56.9 /1,00,000 as compared to 150 to 156 /1,00,000 in US and Europe.

The paralysis presents as weakness which may be present with abnormal tone, such as rigidity or spasticity. Hemiplegia occurs when there is a disruption of blood flow to the brain, causing part of the brain to die. The paralysis in the body occurs in the side opposite the affected part of the brain. For example, if the left side of the brain is injured, then the paralysis will be on the right side of the body. There are many causes for the presentation including the following-

Causes of hemiplegia or hemiparesis

- Cerebro-vascular accident (CVA) or Stroke
thrombosis: embolism or hemorrhage
- Transient ischaemic attack (TIA).
- Migraine syndrome.
- Head trauma, brain contusion, Subdural haematoma or epidural hematoma.
- Struge- Weber syndrome.
- Todd"s paralysis.
- Brain tumour (Primary or metastatic disease).
- Infection: brain abscess, encephalitis, subdural empyema or meningitis
- Non-ketoic hyper-osmolar coma.
- Vasculitis.
- Demyelinating disease: Multiple sclerosis, acute necrotising myelitis.
- Hereditary disease: leukodystrophies
- Congenital or perinatal injury
- Arteriovenous malformation.

Symptoms

- Sudden unilateral extremity weakness, loss of function
- Reflects spinal cord or higher involvement

Although there are many conditions and causes leading to hemiplegia but stroke is adding the maximum bulk to the condition.

The condition can also be differentiated into following groups-

SUDDEN ONSET

!) Vascular-

(a) Haemorrhage.

- (b) Thrombosis.
- (c) Embolism.

2) Intracranial infections-

- (a) Encephalitis.
- (b) Meningitis.

3) Trauma

4) Hypertensive encephalopathy.

5) Post epileptic paralysis.

6) Disseminated sclerosis.

7) Uraemia.

8) Hysteria.

SLOW ONSET-

- 1) Cerebral tumour.
- 2) Cerebral abscess.
- 3) Internal carotid artery occlusion.
- 4) Chronic sub-dural haematoma.
- 5) Meningitis, encephalitis.
- 6) Chorea.
- 7) G. P. I.
- 8) Congenital defects.

Determination of hemiplegia in an unconscious patient:-

- (i) Conjugate deviation of the eyes away from the paralysed side.
- (ii) On hemiplegic side-

- (a) Cheek flaps during respiration.
- (b) Nasal fold obliterates.
- (c) Corneal reflex diminished.
- (d) Pain stimulation less effective.
- (e) More flaccidity of limbs.
- (f) Paralysed leg extend and assume position of external rotation while tends to be semiflexed.
- (g) Pupil large on side of haemorrhage.
- (h)** Temperature is higher on paralysed side.

STROKE :

A stroke (also called a cerebrovascular accident) is the death of brain tissue (cerebral infarction) resulting from lack of blood flow and insufficient oxygen to the brain.

A stroke can be either ischemic or hemorrhagic.

Ischemic stroke :- In an ischemic stroke, the blood supply to part of the brain is cut off because either atherosclerosis or a blood clot has blocked a blood vessel.

Haemorrhagic stroke :- In a hemorrhagic stroke, a blood vessel bursts, preventing normal flow and allowing blood to leak into an area of the brain and destroy it.

CAUSES:-

1. With an ischemic stroke, blockage can occur anywhere along the arterial pathways to the brain. For example, a large deposit of fatty material (atheroma) can develop in a carotid artery, reducing its blood flow to a trickle, like water through a clogged pipe. This condition is serious because each carotid artery normally supplies a large percentage of the brain's blood supply. Fatty material may also break off from the wall of the carotid artery, travel with the blood, and become stuck in a smaller artery, blocking it completely. The carotid and vertebral arteries and their branches can become blocked in other ways. For example, a blood clot formed in the heart or on one of its valves can break loose (becoming an embolus), travel up through the arteries to the brain, and lodge there. The result is an embolic stroke (**cerebral embolism**). Such strokes are most common in people who have recently had heart surgery and in people who have defective heart valves or abnormal heart rhythms (especially atrial fibrillation). A **fat embolus** is a rare cause of stroke; many emboli can form if fat from the marrow of a broken bone is released into the bloodstream and eventually coalesces (consolidates) in an artery.

2. A stroke can occur if inflammation or an infection narrows blood vessels that lead to the brain.

3. Drugs such as cocaine and amphetamines also can narrow the blood vessels in the brain and produce stroke.

4. A sudden drop in blood pressure can severely reduce blood flow to the brain, usually causing the person to faint. However, a stroke can result if the low blood pressure is severe and prolonged. This situation can occur when someone loses a lot of blood from an injury or during surgery, has a heart attack, or has an abnormal heart rate or rhythm.

DIAGNOSIS:-

Stroke can be diagnosed from the **history of events** and from a **physical examination**.

The **physical examination** helps a doctor pinpoint where the brain was damaged.

A **computed tomography (CT)** or **magnetic resonance imaging (MRI)** scan is usually performed to confirm the diagnosis, but these tests may not reveal the stroke until several days later. A CT or MRI scan also helps rule out whether a hemorrhage or brain tumor caused the stroke. For the rare occasion when immediate surgery is being considered, the doctor may perform **angiography**.

Determination of the precise cause of the stroke is very important. It is of prime importance to find out whether the stroke was caused by a travelling blood clot (embolism) that reached the brain or by blockage of a blood vessel from atherosclerosis (atherothrombosis).

When a blood clot or embolism is the cause, another stroke is very likely to follow unless the underlying problem is corrected. For example, if blood clots are forming in the heart because it's beating irregularly, treating the irregularity can prevent new clots from forming and causing another stroke. In this case, the physician generally obtains an electrocardiogram (to look for abnormal heart rhythms) and may also recommend other tests of the heart. Such tests might include **Holter monitoring**, in which an electrocardiogram is taken continuously for 24 hours, and **echocardiography**, in which the chambers and valves of the heart are evaluated.

Other laboratory tests are of little help but are performed to be sure that the stroke wasn't caused by a deficiency of red blood cells (**anemia**), an excess of red blood cells (**polycythemia**), a cancer of the white blood cells (leukemia), or an infection. A spinal tap (lumbar puncture) is rarely necessary after a stroke. In fact, this test can be performed only if the physician is sure that the brain isn't under excess pressure, which usually requires a CT or MRI scan. A spinal tap is performed to check for infection of the brain, to measure the pressure in the cerebrospinal fluid, or to see if hemorrhage is the cause of the stroke.

DIFFERENTIATION BETWEEN HAEMORRHAGIC, THROMBOTIC & EMBOLIC STROKES

FEATURES	HAEMORRHAGIC	THROMBOTIC	EMBOLIC

Time of onset	During activity	In sleep	
Progression	Over minutes or hours	On waking up or over hours	Within seconds
TIA's	Absent	Present	
Vomiting	Recurrent	Absent or occasional	Absent or occasional
Headache	Prominent	Mild or absent	Mild or absent
Early resolution (within minutes or days)	Unusual	Variable	Possible
Meningeal irritation	Present	Absent	Absent
Carotid bruit (and absent pulse)	Not seen	Highly supportive	Possible
Valvular heart diseases and atrial fibrillation	Not seen	Unusual	Highly supportive
CT scan	Haemorrhage	Pale infarct	Haemorrhagic infarct

MANAGEMENT:-

Homoeopathic approach-

Conventional medicine conditions us to believe that the symptoms of cerebrovascular accident (CVA), better known as "stroke" are alike or common in all people. Paralysis, weakness and defective or absent speech (aphasia) are examples. Homoeopathy, however, makes us understand that the symptom picture in any disease is unique to the individual and must be observed very carefully.

As devastating and frightening as a stroke may be, from a homoeopathic perspective the symptoms actually represent the attempt of a person's "vital force," or guiding energy,

to correct the imbalance which has resulted in the state. Observing and following the individual symptom picture will lead the homoeopath to prescribe the remedy most "similar" to the CVA. The patient should then be on the way to recovery from the energetic imbalance in a shorter time than if treated by conventional methods only.

Physical Medicine :-

Gentle, regular aerobic exercise can help prevent stroke

A simple hydrotherapy technique may provide relief, and even minimize long term sequelae.

Lowering the body temperature, with a cold bath, as much as possible without inducing shivering as soon as possible after a stroke has occurred, or is suspected to have occurred. The idea here is that if the stroke is ischemic (temporary restriction of oxygenated blood) the body naturally and preferentially preserves blood flow to the brain, so cooling the rest of the body will cause the blood to shunt rapidly to the brain.

If someone has collapsed due to a stroke, and is waiting to get medical attention, raise the head gently if you are absolutely sure no spinal injury has been sustained, and keep the paralyzed side up. Don't let the stroke victim lie on the paralyzed limbs if at all possible. The paralyzed limbs may be massaged to maintain proper circulation

Two of the most distressing sequelae of stroke are inability to speak clearly, and inability to perform fine motor skills,

For someone struggling to regain the ability to speak normally, speech therapy is highly recommended.

To help minimize permanent damage to hand coordination exercises can help a lot such as the exercise ideas listed below-

- Squeeze a soft or spongy ball with the hands.
- Stretch and reach for objects.
- Counting of coins with the fingers.
- Typing.
- Playing piano.
- Patient can get some help to figure out safe movements routines that will allow him to bathe himself.

DIET:-

Strokes often occur because of fatty deposits in the arteries, which indirectly compromises smooth blood flow to the brain, it makes sense to eat a low-fat diet. Strokes also occur because of insufficient integrity of the walls of the blood vessels, so eating foods that improve vascular tone, notably the dark-colored berries (whose active ingredient is the blue-black pigment anthocyanadin) would be wise. In general, the eating principles for minimizing the chance of a recurring stroke, or to stay as healthy as possible after a stroke, are to keep the diet:

Low in sugar, low in cholesterol

Low in unsaturated fats

With the calorie percentages of-

70% complex carbohydrates.

12-15% protein.

15-18% fat (preferably not animal fat).

High in fiber

Low in Sodium. Sodium can raise blood pressure, putting excessive pressure on the vascular system.

Taking specific juice combinations, at least 5 pints of fresh juice weekly, can work well to minimize stroke sequelae.

- celery, carrot, prune
- carrot, celery, parsley, and spinach
- carrot and spinach
- carrot, beet, and celery
- carrot, spinach, turnip, and watercress

Other food combinations for post-stroke health to consider, based on taste buds, are:

- Prune and rice polishings.
- Raw goat's milk and 1 tsp. sesame, sunflower, or almond butter, 1 tsp. honey and silver of avocado.
- Black cherry and egg yolk.

Management of patient of thrombosis or embolism:-

1. POSITION -

- Flat with head low.
- Comatose patients should be turned from side to side every two hours.
- Excessive rotation of the head should be avoided, since this compresses or stretches the vertebral arteries in the neck.

2. MAINTAINANCE OF HYDRATION & NUTRITION-

- In unconscious patients can be achieved by ryle's tube.
- In first 24 hours 5% glucose solution (2000 ml) is adequate.
- This can be replaced after 24 hours when danger of vomiting and active regurgitation is passed by milk, sugar, eggs, salt and vitamins.
- Food should be given two hours after the change of position

3. CARE OF SKIN:-

- Areas of reddening of skin over heels, ankles, shoulders and elbows are indicative of pressure necrosis and patient needs frequent position change.

4. TREATMENT OF SHOCK:-

- Maintenance of optimal blood pressure.
- If shock persists then intravenous transfusion.

5. TREATMENT OF HYPERTENSION-

Systolic B.P should be continually lowered at about 100mm of Hg.

6. VASODILATORS-

- In cerebral infarction severe oxygen therapy should be given with 5% Co₂ as oxygen tends to decrease cerebral anoxia and carbon dioxide is best cerebral vasodilator. Inhalation of the mixture is given 5 to 10 minutes during each hour for 48 hours after the onset of symptoms and during day time for 4 to 5 more days.
- Carbon dioxide should not be given if there is any evidence of haemorrhagic infarction.

7. CARE OF BOWEL & BLADDER

8. PREVENTION OF CONTRACTURE- Paralysed limb should be given full rest of passive movement.

9. SURGICAL TREATMENT- It is beneficial in cases with vascular insufficiency in progressive strokes as in complete strokes where the neurological deficit is mild and second episode may be prevented.

Homoeopathic medicines for stroke-

· **Arnica montana** for the stroke which gives a cerebral lesion similar to a bruise, or a frank hematoma (for post acute crisis survival).

· **Belladonna** is given when the face is flushed and you have a throbbing headache, the pain which is worse with light, noise, any jarring movement, lying down and in the afternoon, but better in a semi-erect posture.

· **Kali muriaticum** can absorb the clot (for post acute crisis survival).

· **Natrum muriaticum** for when the face is pale and you have a throbbing headache, nausea, and vomiting.

· **Nux vomica** is the remedy for when the stroke occurs after a heavy meal or too much alcohol; and you feel vertigo followed by a momentary loss of consciousness.

· **Opium** for when the patient is unconscious, breathing heavily; when the face is dusky and cyanosed (blue, due to lack of blood.).

· **Sulphur** is for the heavy red-faced beer-drinking type, who complains of feeling heat on top of his head.

· **Veratrum album** is given when the clinical picture is one of collapse; shock, sweating and cold; with a cold sweat on the forehead.

First aid for stroke, if the person loses consciousness:

Aconite 30c: if the person is very fearful

Opium 6c: if the person has collapsed; face is dark and flushed; loud, "snoring" breathing; cheeks puff out as person exhales

Arnica 6c: Once the person's condition is stable, give every 4 hours for up to 3 days.

AFTER STROKE-

Aconite and Arnica

Aconite can help alleviate the panic, fright, and shock that accompany a stroke.

Arnica helps to initiate bodywide healing.

Baryta carbonica is helpful for both physical and mental weakness and fatigue following a stroke

Aurum muriaticum is good if your predominant symptom is depression.

Homoeopathic Medicines for paralysis-

Causticum [Caust]

CHRONIC PARALYSIS from dry, cold weather, especially during the intense cold of winter, OF SINGLE PARTS OR SINGLE NERVES, as of facial nerve, ptosis; paralysis of tongue when deglutition and speech are more or less destroyed; palsy of lips; glosso-pharyngeal palsy, sometimes involving vocal cords; hemiplegia of opposite side of body as the sequela of apoplexy; gradually appearing palsies; pains in paralyzed parts increase when lameness decreases; one-sided paralysis, especially of flexor muscles; SENSIBILITY MOSTLY INTACT; catarrhal and rheumatic conditions; suppressed chronic eruptions; weeping mood, hopelessness, fear of death.

Nux vomica-

PARALYSIS LABIO-GLOSSO-PHARYNGEAL; MULTIPLE SCLEROSIS; paralysis from apoplexy, or cerebral softening, from sexual excesses, abuse of alcohol, after mental overexertion, combined with sedentary habits; after poisoning by arsenic, after spasms, or diphtheria; parts cold, numb, emaciated; sick-headache, with dimness of vision, sour bitter vomiting with over sensitiveness of all the senses; paralysis from exhaustion of the spinal cord, spinal anaemia, reflex para and hemiplegia, or white softening, or where paresis of the motor nerve-centres remains after all signs of irritation have passed away; incomplete paralysis; power of motion not entirely gone, but impeded by painful twitchings and spasmodic contraction whenever the affected part is exercised; sensation small of back as if lame; paralysis of arm, with violent jerks in it, as if the blood would start, out of the veins; staggering walk, when he walks he drags his feet, cannot lift them up; numbness and deadness of lower legs, coldness of the paralyzed parts; paralysis of the bladder in old men; great debility of nervous system, with oversensitiveness of all the senses, in drunken people; worse from motion and slight touch but strong pressure relieves (China); mercurial tremors.

Phosphorus-

LOCOMOTOR ATAXIA with much burning along spine; great tingling and formication along spine and in affected extremities; during first stage extreme sexual excitement. DUCHENNE'S PSEUDO-HYPERTROPHIC PARALYSIS, in repose painless twitching of the muscles, and when they stopped easily excited again by contact. PROGRESSIVE SPINAL PARALYSIS, with partial contraction of the affected muscles, formication and tearing in limbs; anaesthesia with increased heat; periodically returning, unbearable pains in spine, preventing walking; heaviness and sensation of fatigue, especially when ascending steps; pains in soles of feet, as if she had walked too much with sensation as if they were asleep; great irritability and nervousness (Zinc.). PARALYSIS OF BLADDER, caused or (<) by excessive loss of animal fluids, as semen. HEMIPLEGIA, facial, aphasic paralysis from thrombosis of left middle cerebral artery or from pressure upon spinal cord (scoliosis).

Rhus-tox [Rhus-t]

THE GREAT ANTIPARALYTICUM, Myelitis of the anterior horns (infantile paralysis). Lameness in all extremities and joints, with stiffness, worse on rising after having been seated for a long time, sensation not much impaired; palsy of one side of the lower extremities, with dragging, slow, difficult walking; rheumatic palsies from exposure to wet, strains, or excessive exertions, with painful stiffness, tingling and numbness; paralysis after ague or typhoid, from sexual excesses, pains in small of back improved by lying on something hard; hemiplegia, Paraplegia, paralysis of the rectum and of the bladder, dysphagia paralytica, blepharoplegia, etc.; Bell's paralysis; paresis of one or more muscles of eyeballs from damp cold; puffiness with paralytic weakness of the joints, more than oedema, as it does not pit much on pressure., Sulph. follows well.

Aconite.

Hempel, who used Aconite for all ailments claimed that it was the sovereign remedy for almost every species of paralysis, and its symptoms are certainly indicative of the truth of his assertion. It has the well-known numbness and tingling. Facial paralysis accompanied with coldness from exposure to dry, cold winds, especially in acute cases, well indicate the remedy. Paraplegia with tingling. Rhus, Sulphur and Causticum have paralysis from cold. Cannabis Indica and Staphisagria have tingling.

Plumbum. [Plum]

Paralysis, with atrophy, is the watchword of Plumbum. Wrist drop, paralysis of the extensors. Paralysis due to sclerosis or fatty degeneration. Paralysis with contractions. Bayes states that he has not seen any beneficial results from Plumbum in paralysis of the lower extremities, and it does seem to affect the upper extremity more than the lower. Ptosis, heavy tongue, constipation, paralysis after apoplexy, with pale, dry cold skin. Tremor followed by Paralysis. Paralysis agitans. The mercurial tremor resembles this affection, and

hence Mercurius should be a remedy for paralysis agitans; Plumbum, Atropine sulphate, Zincum and Hyoscyamus are the principal remedies in this affection. The paralysis of Plumbum is probably of spinal origin. Cuprum is quite similar to Plumbum in many paralytic conditions; it seems, however, to have more cramping.

Gelsemium. [Gels]

Complete motor paralysis, rather functional than organic in origin. It is one of our best remedies in post-diphtheritic and in infantile paralysis. Paralysis of the ocular muscles, ptosis; the speech is thick from paretic conditions of the tongue. Paralysis from emotions. Aphonia, paralysis of the larynx. Conium has paralysis of central region; the sensation is little involved, and the tendency of the paralysis is to move from below upwards. Acute ascending paralysis. Paralysis of the aged. Argentum nitricum. Post-diphtheritic paralysis; also paraplegia. Nux vomica. Paralysis of the lower extremities, contractive sensations and heaviness in the limbs. Paralysis of the bladder in old men.

Rehabilitation:-

Intensive rehabilitation can help many people learn to overcome disability despite the impairment of some brain tissue. Other parts of the brain can assume tasks previously performed by the damaged part.

Rehabilitation is started as soon as blood pressure, pulse, and breathing have stabilized. Doctors, therapists, and nurses combine their expertise to keep the patient's muscles strong, prevent muscular contractions and pressure sores (which can result from being in one position too long), and teach the patient to walk and talk again. Patience and perseverance are crucial.

After discharge from the hospital, many people benefit from continued rehabilitation in a hospital or nursing home, in scheduled visits to a rehabilitation center, or at home. Occupational and physical therapists can suggest ways to make life easier and the home safer for a person with disabilities.

Prognosis

Many people who suffer a stroke recover all or most normal function and enjoy years of normal life. Others are physically and mentally devastated and unable to move, speak, or eat normally. During the first few days, Physicians generally can't predict whether a patient will improve or worsen. About 50 percent of the patients with one-sided paralysis and most of those with less severe symptoms recover some function by the time they leave the hospital and can eventually take care of their basic needs. They can think clearly and walk adequately, although they may have limited use of the affected arm or leg. Use of an arm is more often limited than use of a leg.

About 20 percent of the people who have a stroke die in the hospital. The proportion is higher among the elderly. Certain features of a stroke suggest that the outcome is likely to be poor. Strokes that cause unconsciousness and those that impair breathing or heart function are particularly grave. Neurologic losses that remain after 6 months are likely to be permanent, although some people continue to improve slowly. Older people fare less well than younger people. People who already have other serious medical problems find it harder to recover.

A prospective study of double blind control trial of cases of hemiplegia

A prospective study of double blind control trial has been carried out in Dr. A. C. Homoeopathic Medical College & Hospital, Bhubaneswar and author's clinic between 1993 till date. A standardized case procedure was adopted and constitutional medicines were prescribed on the basis of repertorial totality and results were documented which are presented below-

AIMS & OBJECTIVES-

- 1) To find out the incidence or prevalence rate of the disease hemiplegia.
- 2) To find out an average of occurrence.
- 3) To ascertain the most effective drugs and their reliable indications.
- 4) To determine the most effective potency.
- 5) To find out the repetition schedule.

METHODOLOGY:-

A prospective study of double blind control trial have been carried out in Dr. A. C. Homoeopathic Medical College & Hospital, Bhubaneswar and authors clinic between 1993 till date. A standardized case procedure was adopted and constitutional medicines were prescribed on the basis of repertorial totality and results were documented which are presented below-

CRITERIA FOR THE DIAGNOSIS OF THE CASES :-

- (1) Paralysis either left or right side of the body that can be diagnosed from the history of events and from physical examination.
- (2) On examination, patient may show hypertension.