Cerebral Thrombosis

Cerebral Embolism

Cerebral Hemorrhage

Differential Diagnosis:-

	Embolism	Thrombosis	Hemorrhage
Nature of onset	Instantaneously	Sudden or progressive	Catastrophic
Common causes	Mitral stenosis with atrial fibrillation, Carotid stenosis	Arteriosclerosis with or without hypertension	Hypertension almost invariable
Clinical feature I Headache	Variable	Slight or absent	Severe
II Vomiting at onset	Rare	Rare	Common
Convulsions	Common	Rare	Common
Coma	Rarely deep	Varies	Deep unconsciousness
Stiff neck	Rare	Rare	Frequent
Conjugate deviation of eyes	Rare	Seldom	Frequent
Reaction of pupil	No change	May be impaired	Commonly impaired
Blood pressure	Normal	May be high	Usually high
CSF	Usually normal	Clear, Pressure slightly increase	Usually BP high

CT scan or MRI	**Infraction may not appear for 2-4 days**	**May not appear for 2-4 days**	**Can be conformed within minutes of onset**
Termination	**Recovery usually**	**Recovery often**	**Rapid deterioration high mortality**

Localization of site of lesion:-

SITE OF LESION	LOCALIZING SYMPTOMS
Cortex	**Flaccid hemiplegia with cortical sensory loss. Aphasia common. Convulsions may occur.**
Internal capsule	**Commonest site. Hemiplegia. Hemianaesthesia if lesion in posterior one-third. No loss of consciousness. Spasticity marked.**
Thalamus	**Thalamic syndrome — 1- Fleeting hemiparesis or hemiplegia on the side opposite the lesion. 2- Impairment of superficial and loss of deep sensation on the opposite side of the body. 3- Elevation of threshold to cutaneous, tactile, thermal, and painful stimuli, but these when perceived have an abnormal painful quality. 4- Intolerable, spontaneous pains and hyperpathia on opposite side. 5- Ataxia, tremor and/or choreoathetoid movements on the opposite side. 6- Conjugate internal deviation of both eyes with weakness of upward gaze.**
Midbrain	**Upper level — Weber's syndrome — 3rd nerve palsy with crossed hemiplegia. Lower level — Benedict's syndrome (upper red nucleus syndrome)- 3rd nerve affection on side of lesion with tremors, hypertonia and ataxy on opposite side**
PONS	**1- Millard-Gubbler syndrome — Paralysis of lateral rectus, with or without LMN type of facial paralysis on one side**

	with crossed hemiplegia. 2- Foville's syndrome — Similar to Millard - Gubbler syndrome except that instead of lateral rectus paralysis, there is congugate ocular deviation to side of lesion. 3- Avellis's syndrome— Paralysis of 10th cranial nerve on one side (LMN type) with contralateral hemiplegia. 4- Horner's syndrome — Paralysis of the ocular sympathetic may result from a lesion in the tegmentum of the pons.
Medulla	1- Medial medullary syndrome (Dejerine's syndrome) — Ipsilateral flaccid tongue weakness, contralateral hemiplegia and contralateral loss of position and vibration sense (from infarction of medial lemniscus). 2- Lateral medullary syndrome (Wallenberg's syndrome) — Abrupt onset with vertigo (vestibular nucleus), dysphagia (N. ambigus), ataxia (inferior cerebellar peduncle). On examination ipsilateral anaesthesia of face (descending tract of 5th nerve), and contralateral of limbs and trunk (spinothalamic tract), Horner's syndrome (descending sympathetic fibres), nystagmus (vestibular nerve and cerebellar fibres), ipsilateral intention tremor (inferior cerebellar peduncle).
Temporal lobe	1- Deep posterior temporal lobe — Pyramidal fibres pass in close proximity to visual fibres hence hemiplegia usually associated with homonymous hemianopia or upper quadrantic field defect. 2- Anterior temporal lobe — On the dominant hemisphere the pyramidal system lies just medial to the speech fibres, hence hemiparesis associated with expressive aphasia.
Spinal cord	Unilateral lesion of the cortico-spinal tract below the medulla and fifth cervical segment produces spinal hemiplegia involving the limbs of the affected side but without paralysis of muscles innervated by cranial nerves.

Pulmonary Tuberculosis

- Pulmonary tuberculosis (TB) is a bacterial infection that primarily affects the lungs.
- It is caused by the bacterium Mycobacterium tuberculosis.
- Tuberculosis can also affect other parts of the body, such as the kidneys, spine, and brain, but pulmonary tuberculosis is the most common form of the disease.
- Symptoms can vary, but common ones include a persistent cough that lasts for more than three weeks, chest pain, coughing up blood or sputum, fatigue, fever, night sweats, and unintentional weight loss.
- It is diagnosed through a combination of medical history, physical examination, and various diagnostic tests.
- Common tests include a chest X-ray, sputum smear microscopy, culture, and molecular tests like PCR.
- A tuberculin skin test (TST) or interferon-gamma release assay (IGRA) can also help detect the infection.
- Tuberculosis is treatable with a combination of antibiotics.
- The most common treatment regimen involves several antibiotics taken over the course of six to nine months.
- It is crucial to complete the entire course of antibiotics, even if symptoms improve, to prevent drug resistance.

Bronchial Asthma

- Bronchial asthma, commonly referred to as asthma, is a chronic respiratory condition that affects the airways in the lungs.
- It is characterized by recurrent episodes of breathlessness, wheezing, coughing, and chest tightness.
- These symptoms occur because the airways become inflamed and narrowed, making it difficult for air to flow in and out of the lungs most commonly seen are wheezing (a whistling sound when breathing), coughing (often worse at night or early in the morning), shortness of breath, and chest tightness. These symptoms can range from mild to severe, with severe asthma attacks being life-threatening.
- Causes are believed to have a complex, multifactorial etiology.
- It is influenced by both genetic and environmental factors.
- Common triggers for asthma symptoms include allergens (e.g., pollen, dust mites, pet dander), respiratory infections, irritants (e.g., tobacco smoke, air pollution), exercise, cold air, and emotional stress.
- Diagnosis of asthma involves a thorough medical history, physical examination, and lung function tests.
- Spirometry is a common test used to assess lung function.
- Additionally, tests such as peak flow measurements and bronchial provocation tests may be used to confirm the diagnosis and assess asthma severity.

Treatment

- Asthma is a chronic condition, and its management typically involves long-term control medications to reduce inflammation in the airways and quick-relief medications (e.g., bronchodilators) to provide immediate relief during asthma attacks or worsening symptoms.
- The main classes of asthma medications include inhaled corticosteroids, long-acting beta-agonists, leukotriene modifiers, and more.

Management

- Effective asthma management involves identifying and avoiding triggers, monitoring symptoms, adhering to prescribed medications, and having an asthma action plan in place.
- An asthma action plan outlines what steps to take during worsening symptoms or asthma attacks.