

Stroke.

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'A clinical syndrome of rapid onset of cerebral deficit lasting 24 hours due to no apparent cause other than a vascular one.'

It is the disturbance in the supply of blood to the brain.

It is of three types:

- (1) Ischemic stroke.
- (2) Hemorrhagic stroke.
- (3) Transient Ischemic attack.

(1) Ischemic stroke:

This is the most common type of stroke and accounts for 85% of all the strokes.

This type of stroke occurs when a blood clot blocks an artery or vessel supplying blood to the brain.

The brain cells and tissues begin to die within minutes from lack of O_2 and nutrients.

It is of 2 types:

- (a) Thrombotic stroke - Caused by a clot formed in the blood vessel of brain.

(b) Embolic stroke - clot forms elsewhere in the body and travels to the vessel that supplies blood to the brain.

(2) Hemorrhagic stroke:

This type of stroke occurs when the blood vessel either leaks or ruptures, causing bleeding in the brain.

It is of 3 types:

(a) Subarachnoid hemorrhage -

When the bleed occurs in the subarachnoid space of the brain due to trauma, intracranial ruptures or AVM.

(b) Intracerebral hemorrhage -

When the bleed occurs in the brain parenchyma itself, resulting in formation of hematoma.

(c) Subdural hemorrhage -

When the bleed occurs below the dura, and is most often caused by trauma.

(3) Transient ischemic attack -

It is different from the above mentioned types of strokes because the flow of blood to the

Brain is only disrupted briefly.

It is similar to Ischemic strokes as there is blood clot or debris blocking the vessel.

It appears as a warning sign for future strokes and indicates a partially blocked artery or a clot source in heart.

⇒ Etiology:

- (1) High BP
- (2) Hyperlipidemia
- (3) Atherosclerosis
- (4) Diabetes
- (5) Smoking
- (6) Alcohol
- (7) Hereditary
- (8) Obesity
- (9) Junk food intake
- (10) Age
- (11) Sickle cell disease
- (12) Atrial fibrillation

⇒ Diagnostic tests:

- (1) Test for coagulable states.
(Protein C, S and antithrombin III)
- (2) CT scan
- (3) MRI - Reveals area of Ischemia
- (4) Diffusion-weighted imaging (DWI)

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(4) carotid doppler.

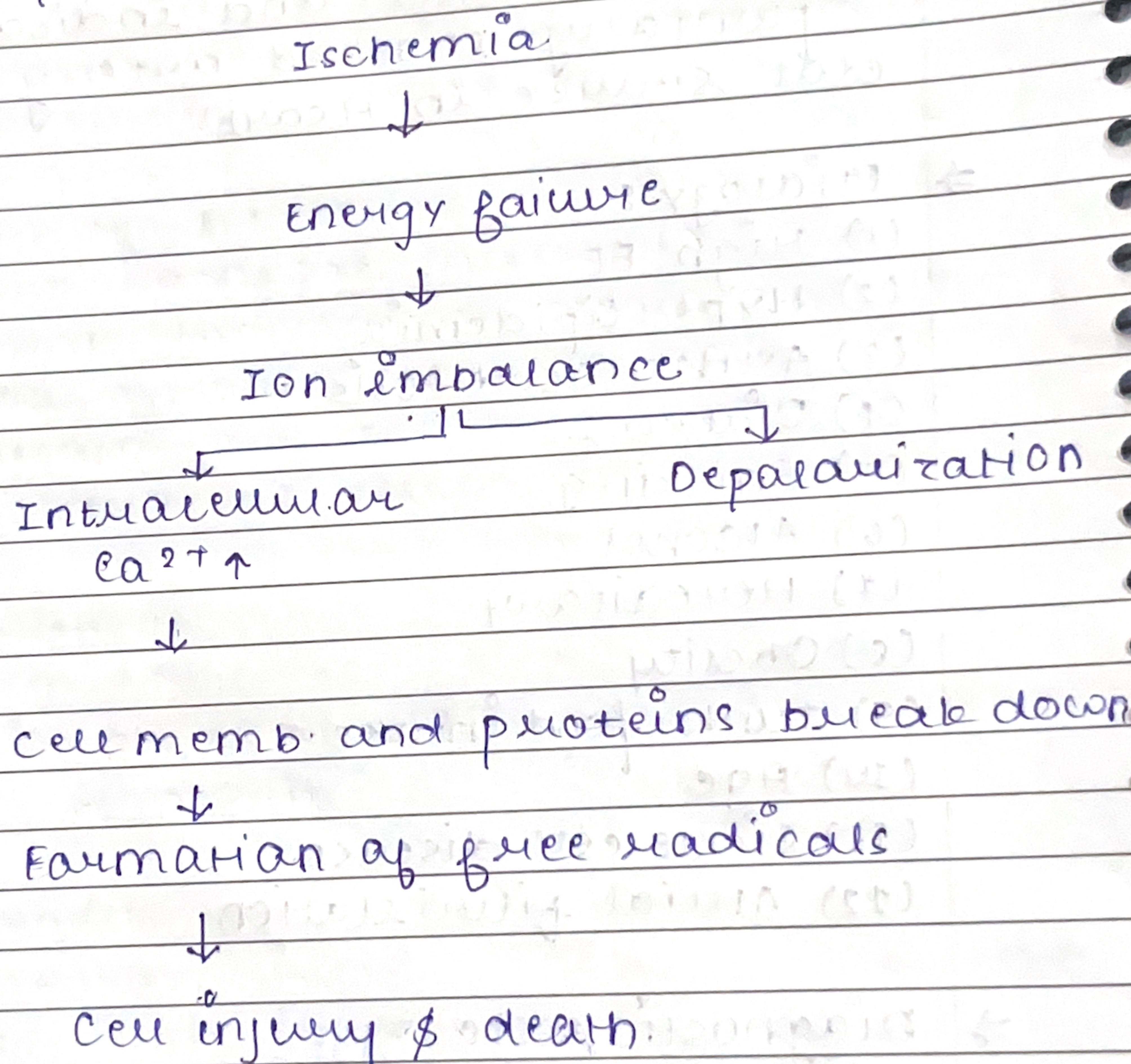
(5) ECG

(6) transcranial doppler.

(7) transesophageal echo.

(8) transcranial doppler

⇒ Pathophysiology:



⇒ Treatment:

(1) Ischemic stroke -

(a) First line therapy:

• Alteplase 0.9 mg/kg IV (max 90mg)
over 1hr

• Aspirin
wei

(b) second

• Antiplatelet

- Aspirin

- Clopidogrel

- Aspirin

• Vitamin

DO

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• Intake

• BP M

(2) Hemorrhagic

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• CCB

(3) Surgery

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- Aspirin 160 - 325 mg daily started within 48 hrs. of onset.

(b) second-line therapy:

- Antiplatelet therapy

- Aspirin 50 - 325 mg daily
- clopidogrel 75 mg daily
- Aspirin 25 mg + extended release dipyridamole 200 mg BD

- vit. K antagonist (INR = 2.0-5)

Dabigatran 150 mg BD.

Apixan 5 mg BD

- Intense statin therapy

- BP reduction → Labetolol IV 10 mg

Infusion 2-8 mg/min

(2) Hemorrhagic stroke -

- No standard pharmacologic strategy for treating intracerebral hemorrhage.

- CCB nimodipine 60 mg every 4 hrs for 21 days.

(3) surgical management:

- craniotomies

- craniotomy.

- Extracranial - Intracranial bypass.