Acidente Vascular Cerebral Isquêmico

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Acidente Vascular Cerebral Isquêmico

- Início súbito de um déficit neurológico atribuído a dano vascular focal.
- Aproximadamente 200.000 mortes nos EUA cada ano.
- Principal causa de incapacidade.
- A admissão em unidade de AVC diminui mortalidade em 30% e melhora resultados.

Cause of Ischemic Stroke

Common Causes	Uncommon Causes
Thrombosis Lacunar stroke (smail vessel) Lage vessel thrombosis Detrydration Embolic occlusion Artery-to-artery Carotid bifurcation Aortic arch Arterial dissection Cardioembolic Atrial fibrillation Mural thrombus Myocardial infarction Dilated Cardiomyopathy Valvular lesions Mitral stenasis Mechanical valve Bacterial endocarditis Arial septal aneurysm Spontaneous echo contrast	Hypercoagulable discoders Protein C deficiency Protein S deficiency Antithrombin ill deficiency Antiphospholipid syndrome Factor V Leiden mutation* Prothrombin G20210 mutation* Systemic malignancy Sickie cell anemia β-Thalassemia Systemic lupus erythematosus Homocysteinemia Thrombotic thorombacytopenic pupura Disseminated intravascular coagulation Dysproteinemias Nephrotic syndrome Inflammatory bowel disease Oral contraceptives Venous sinus thrombosis* Fibromuscular dysplasia Vasculitis Systemic vasculitis [PAN, granulomatosis with polyangagitis (Wegener's), Takayasu's gigant cell arteritis] Primary CNS vasculitis Meningitis (syphilis, tubercullosis, fungal, bacterial, zoster) Cardiogenic Mitral valve calcification Atrial myxoma Intracardiac tumor Marantic endocarditis Libman-Sacks endocarditis Subarachnoid hemorrahge vasospasm Drugs cocaine, amphetamine Moymoya disease Eclampsia

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Formas de Apresentação

- AITT
- RIND
- STEP-WISE
- Déficit instalado

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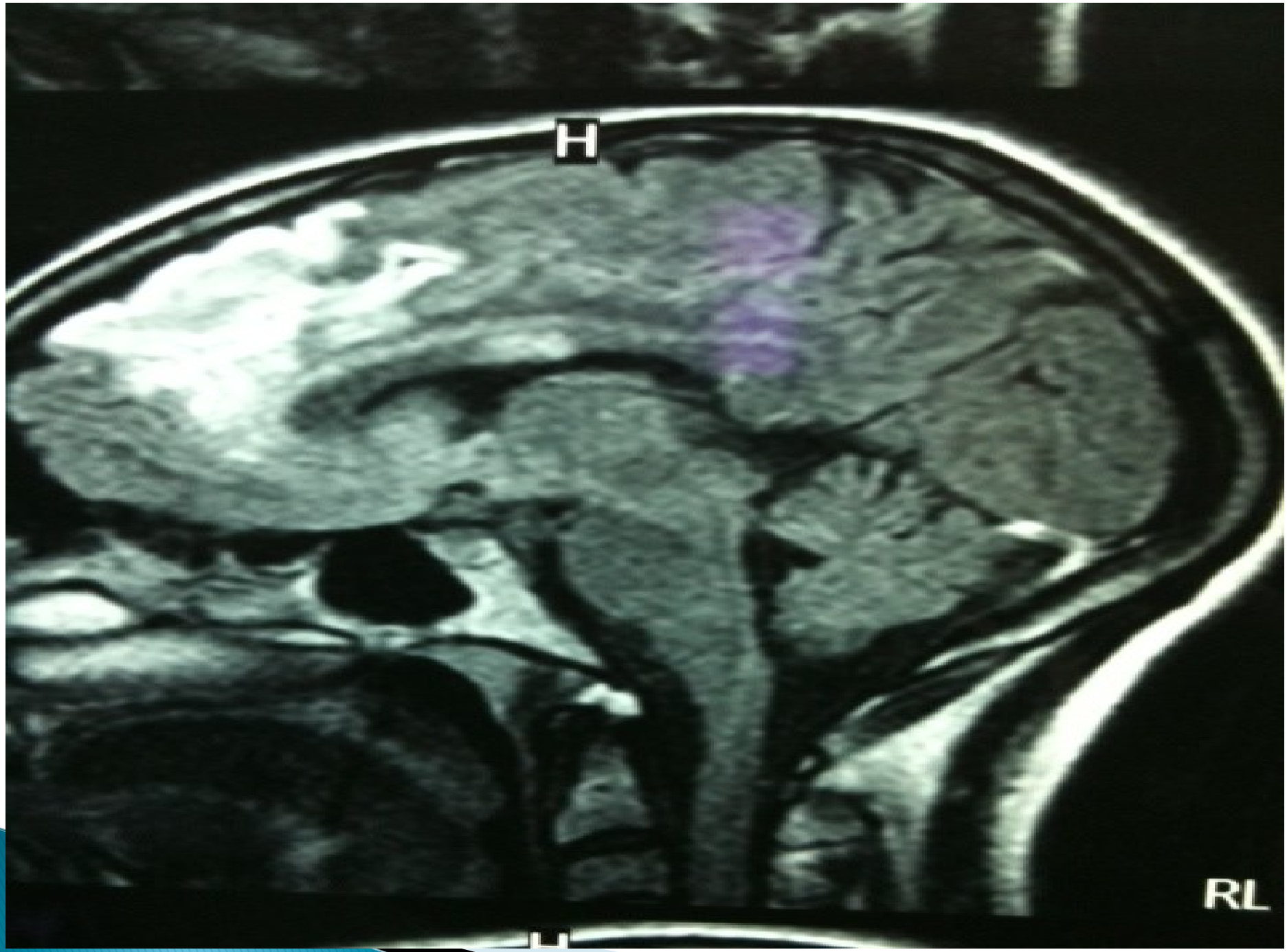
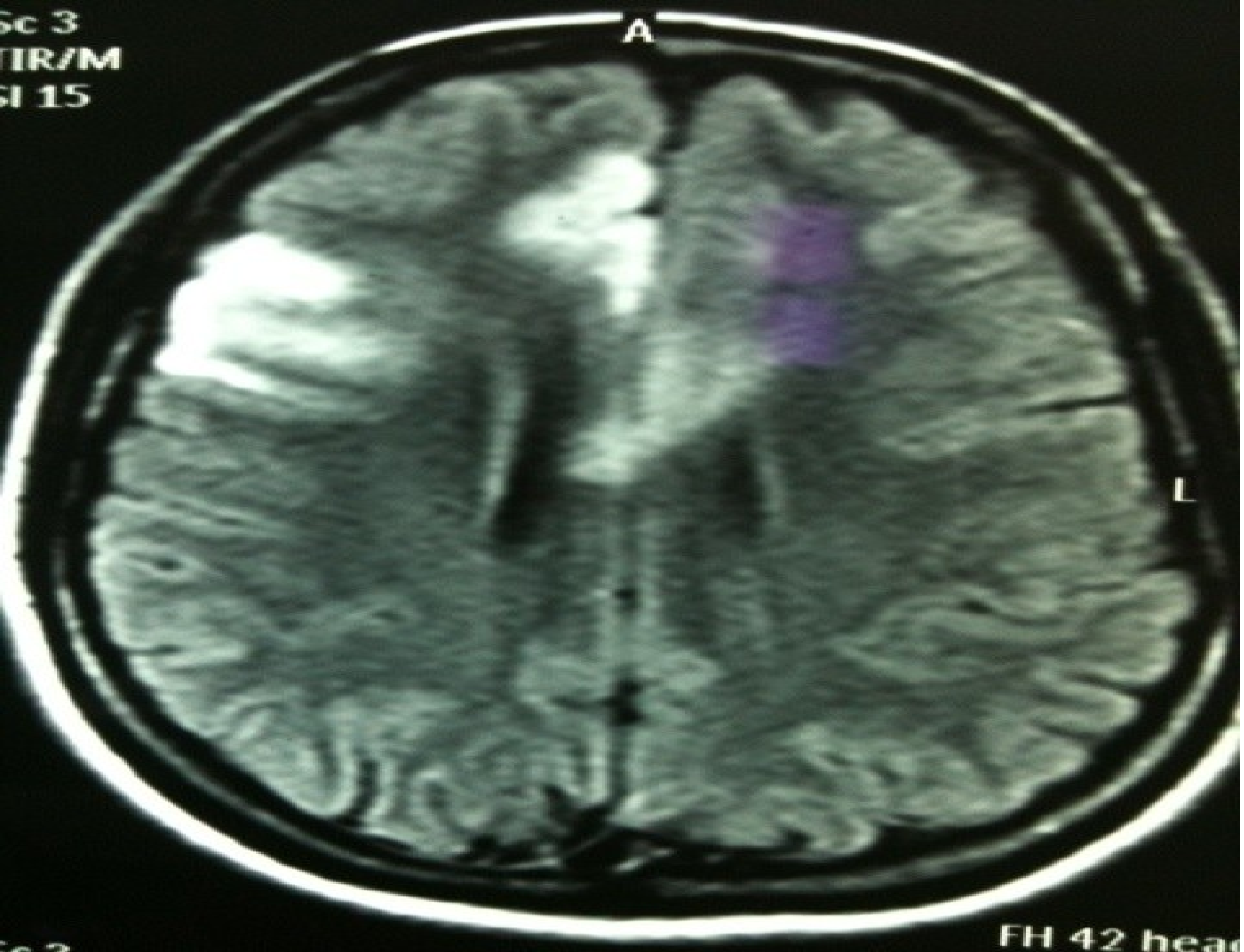
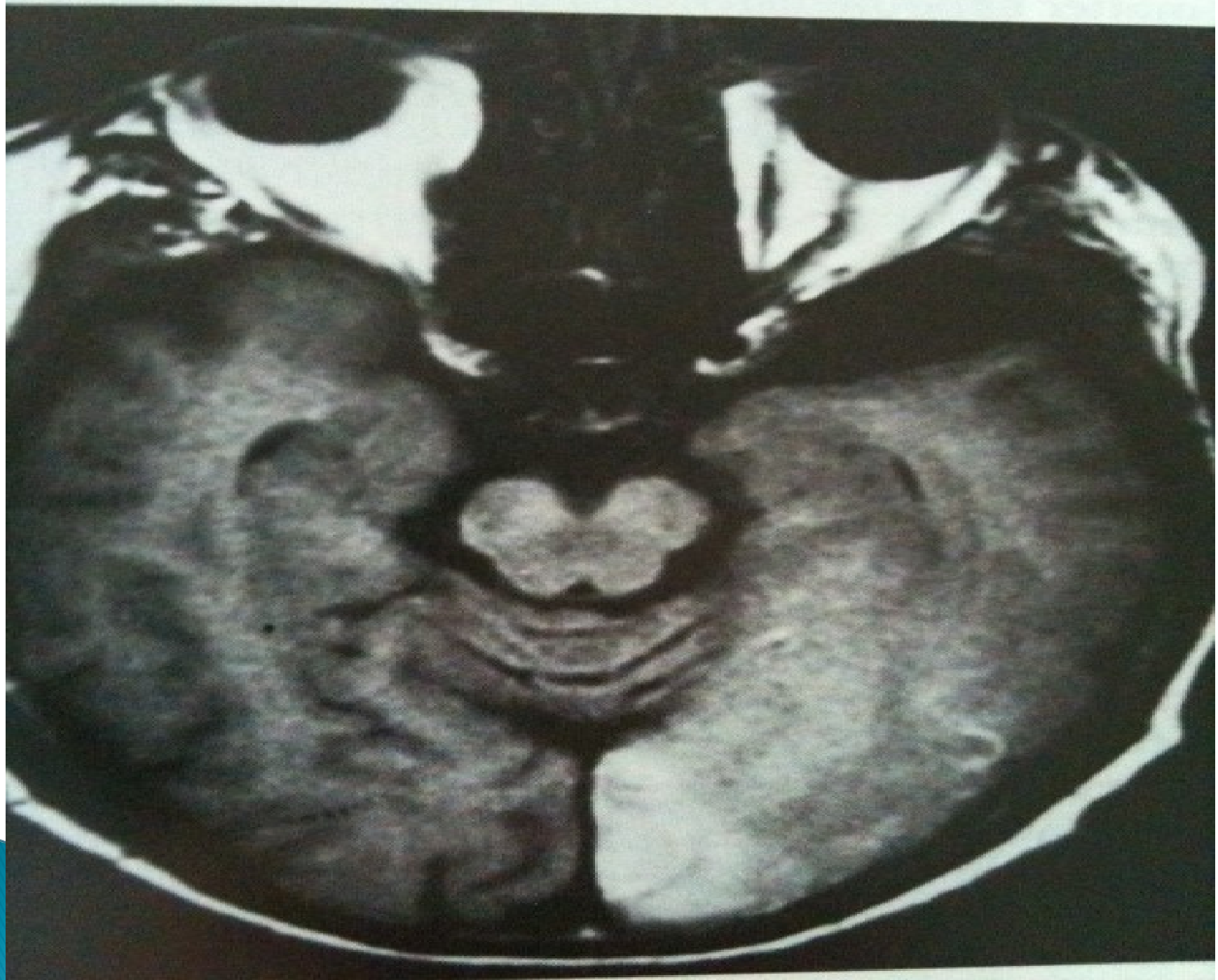
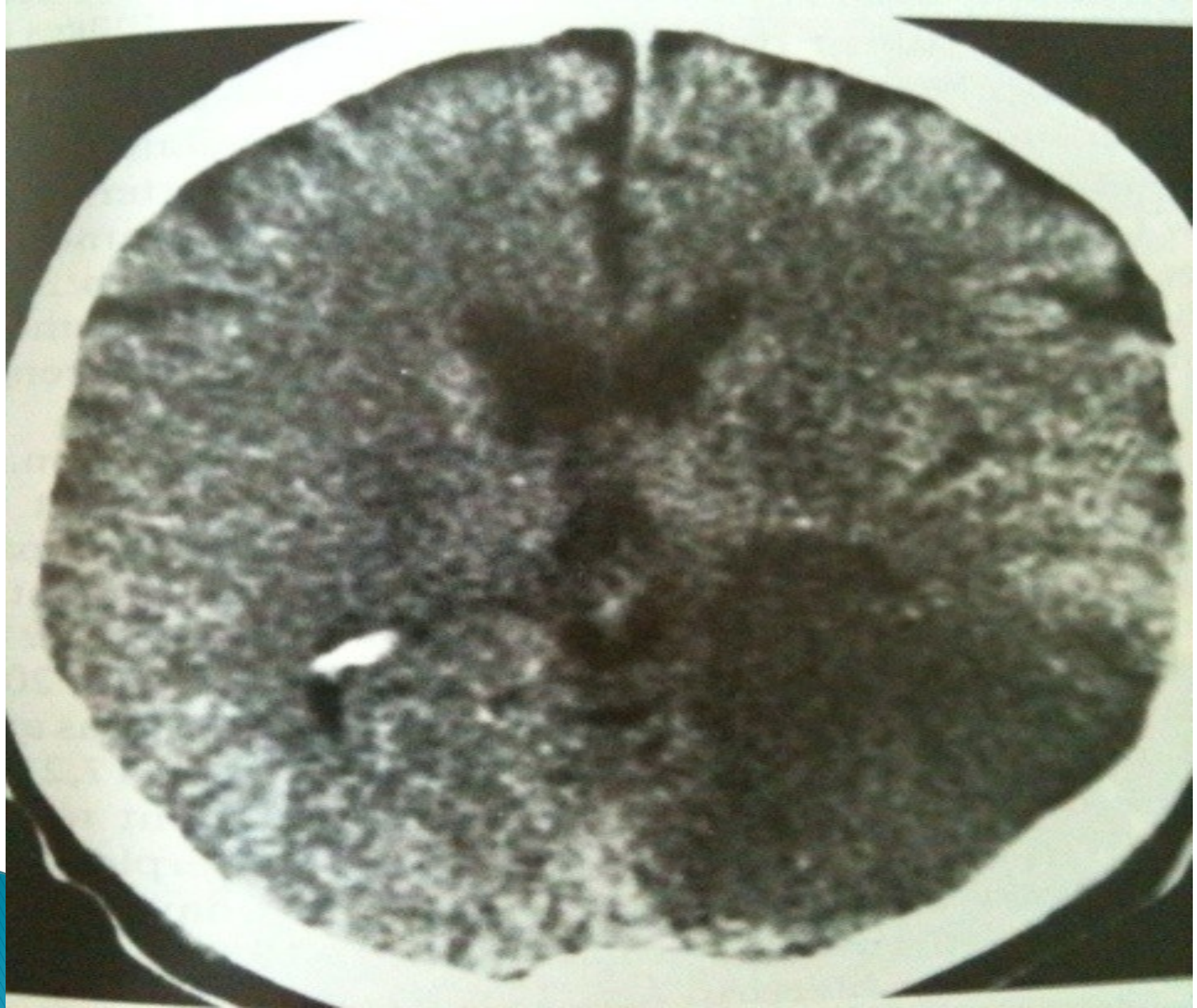
Diagnóstico por Imagem

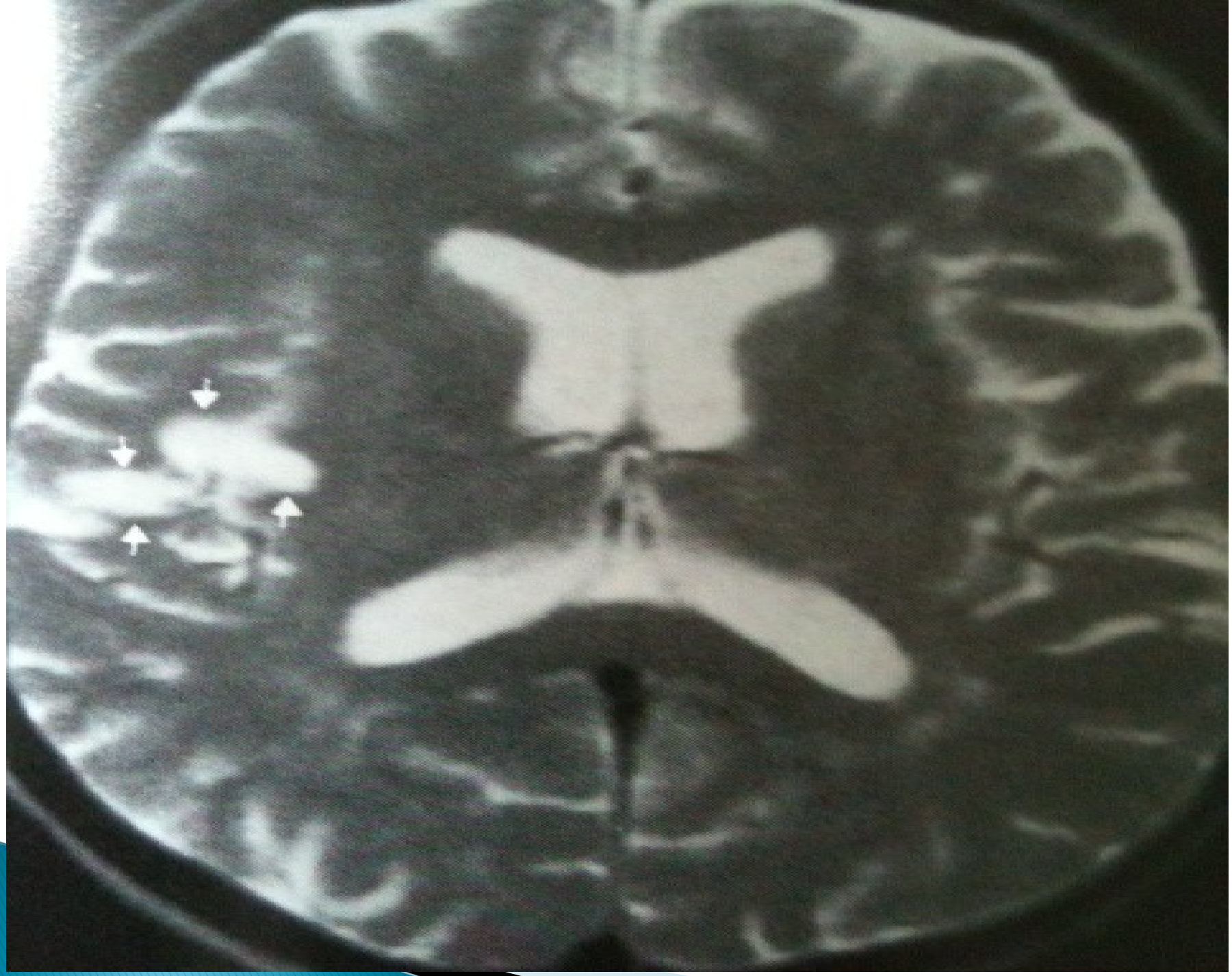
- Tomografia do crânio
- Angiotomografia ou Angioressonância
- Ressonância com difusão
- Angiografia cerebral
- Doppler transcrâniano

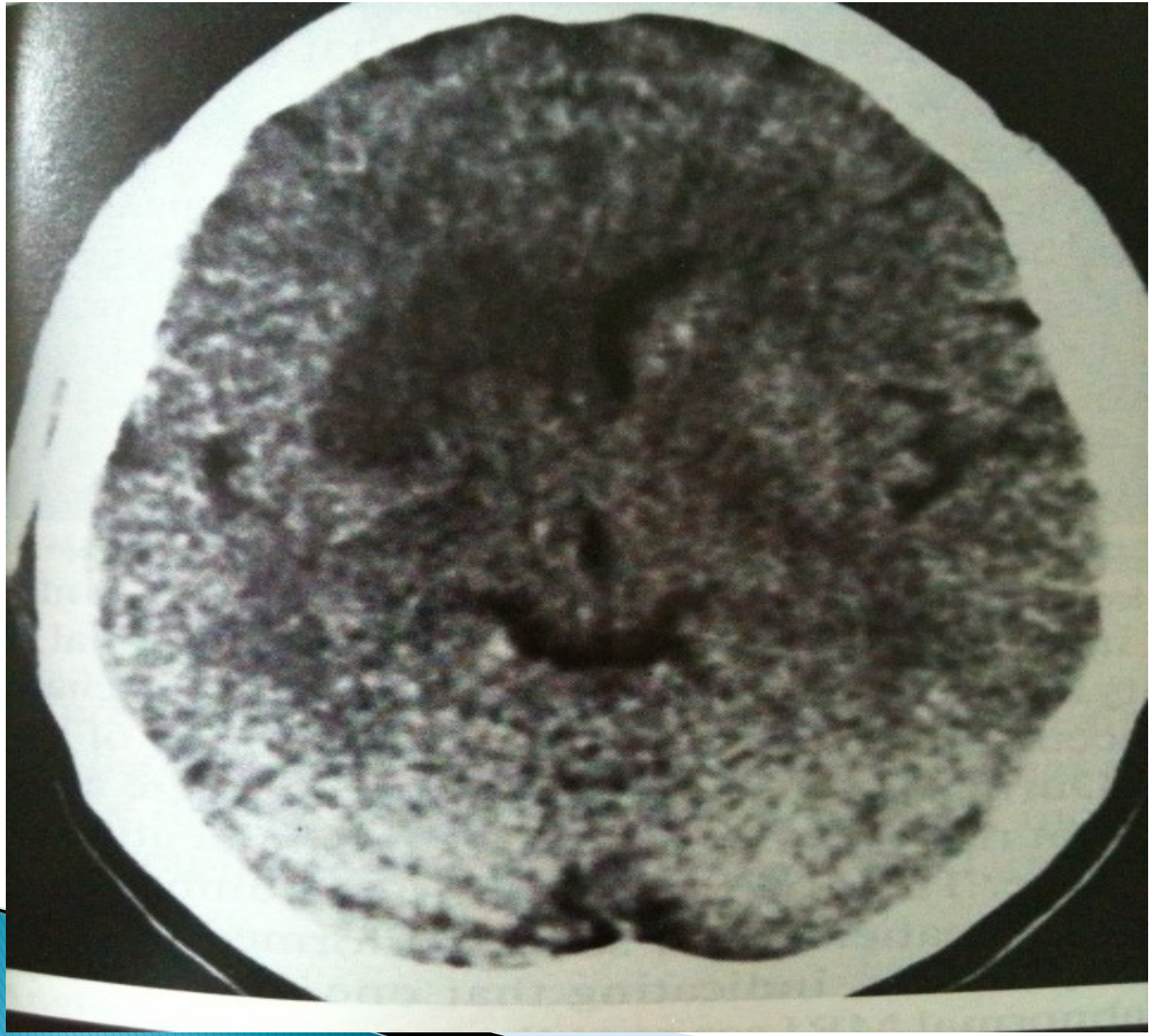

H
RL

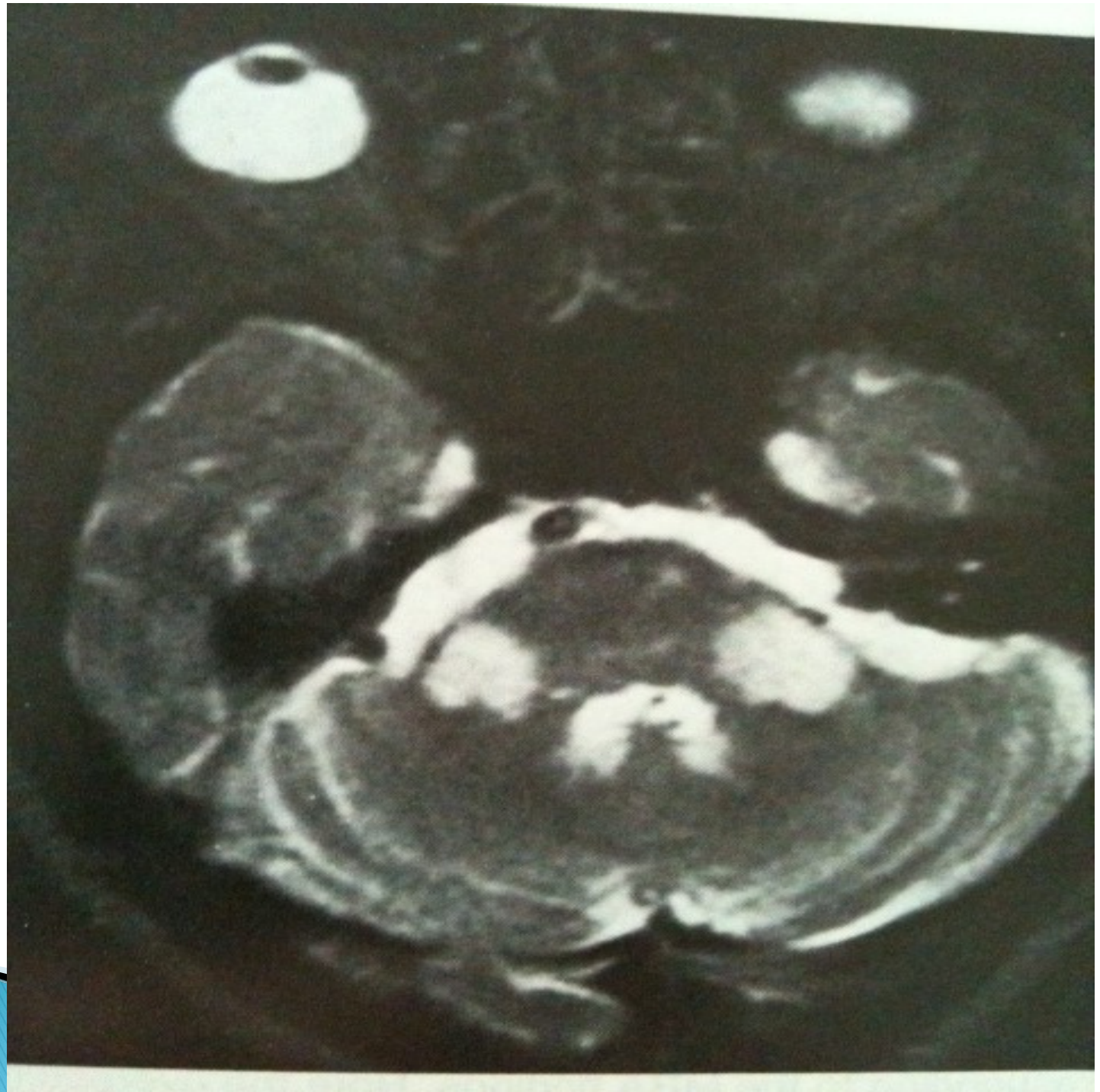

Sc 3
TIR/M
SI 15
A
L
FH 42 head

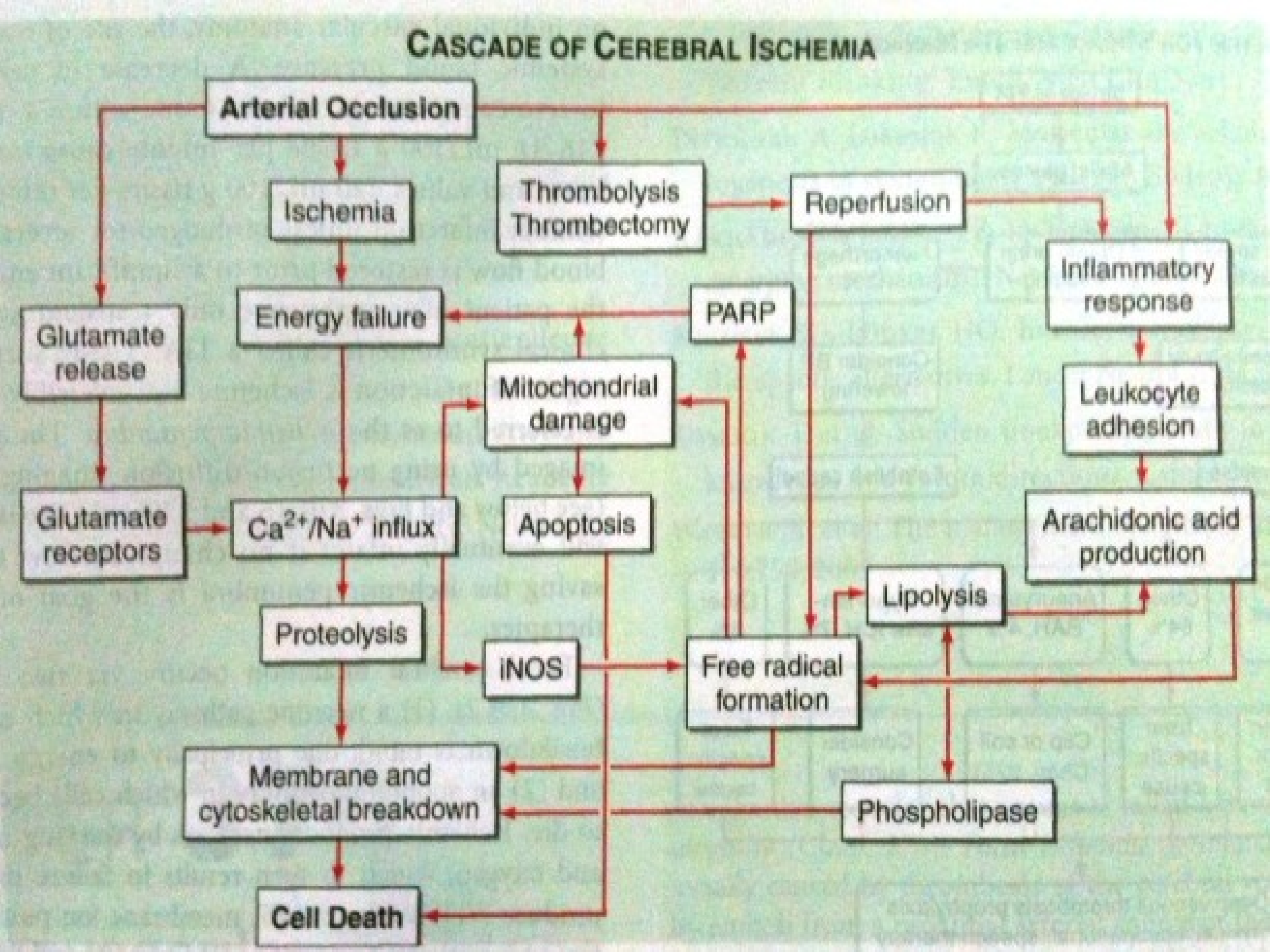











CASCADE OF CEREBRAL ISCHEMIA
Arterial Occlusion
Ischemia
Thrombolysis Thrombectomy
Reperfusion
Inflammatory response
Glutamate release
Energy failure
PARP
Mitochondrial damage
Leukocyte adhesion
Glutamate receptors
Ca2+/Na+ influx
Apoptosis
Arachidonic acid production
Lipolysis
Proteolysis
iNOS
Free radical formation
Membrane and cytoskeletal breakdown
Phospholipase
Cell Death

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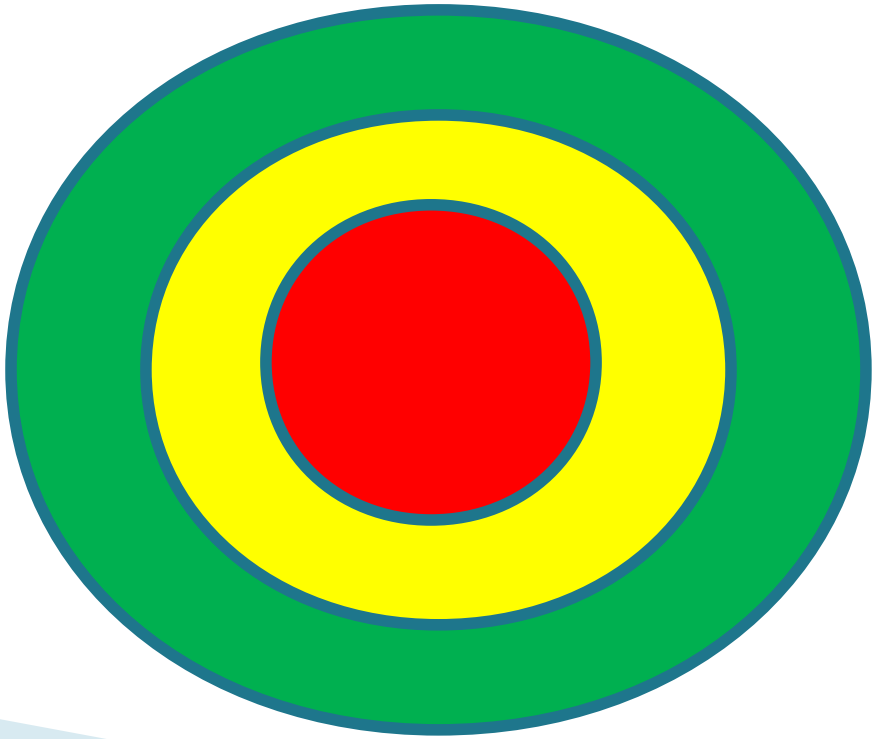
Estratégia do Tratamento AVCI Agudo

Área Isquêmica Central

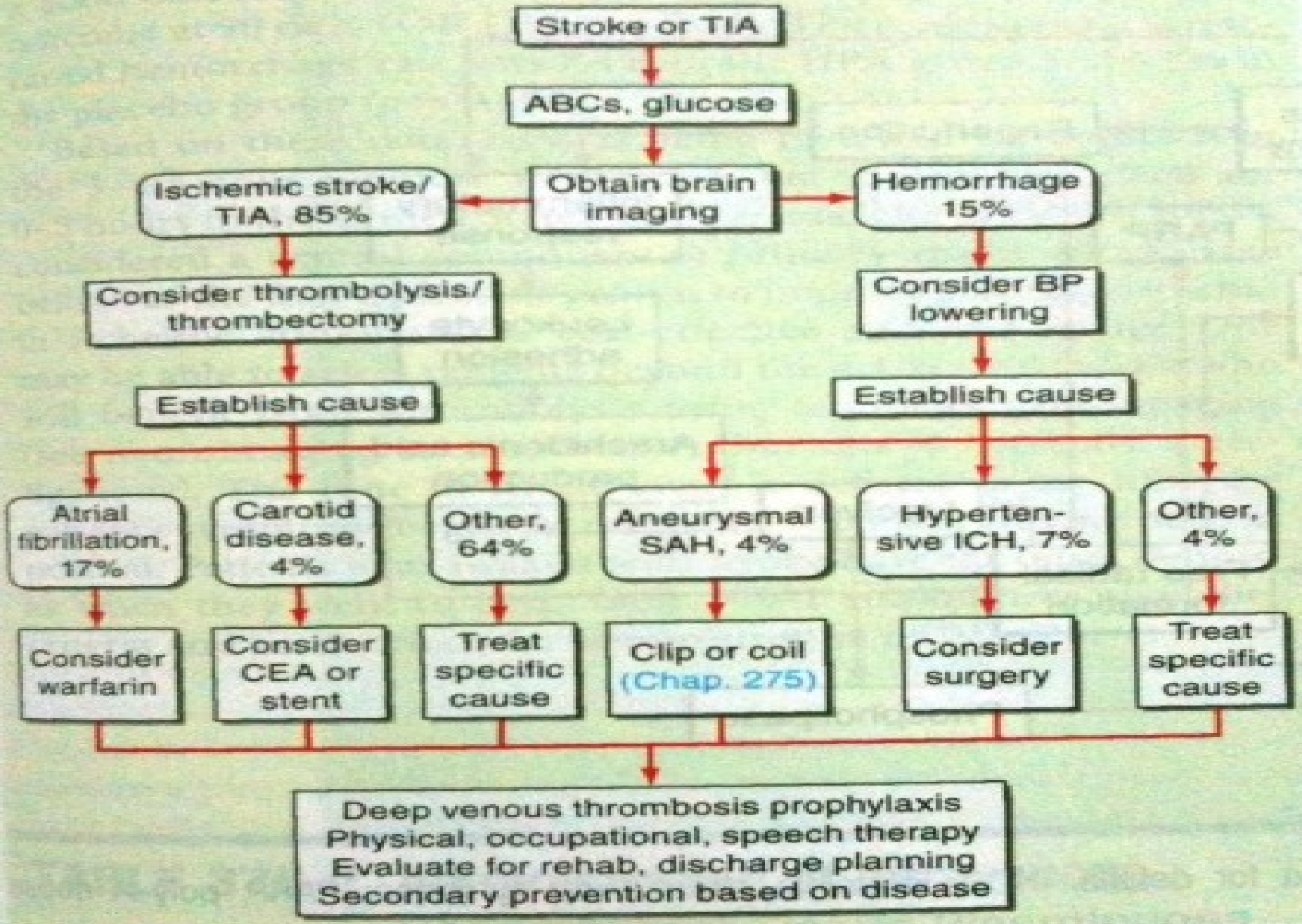
Área de Penumbra



Quanto > área central e < penumbra = pior resultado

Imagem da tomografia x penumbra

Algorithm for Stroke and TIA Management



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Medidas Gerais

- Oxigenação adequada – vias aéreas
- Manutenção da PPC (PAM-PIC) - desidratação
- Vasopressores se PA baixa
- Baixa PA se ≥ 185/120 em:
    - HAS maligna com encefalopatia hipertensiva
    - IAM ou angina associada (LVF)
    - Transformação hemorrágica
    - Dissecção de aorta
    - Antecipar trombólise
- Preservação TVP; MEIA, fisioterapia com manipulação precoce, heparina/derivados
- Atenção para infecção (pulmão, urina, pele)
- Tratamento precoce de febre
- Glicemia: evitar extremos
- Combate ao edema cerebral (restrição líquida/manitol) cabeceira elevada, etc.

Tratamento Específico

Administration of Intravenous
Recombinant Tissue Plasminogen
Activator (rtPA) for Acute Ischemic Stroke (AIS)*

Indication	Contraindication
Clinical dignosis of stroke Onset of symptoms to time of drug admnistration CT scan showing no hemorrhage or edema of > 1/3 the MCA territory Age ≥ 18 years Consent by patient or surrogate	Sustained BP > 185/110 mm Hg despite treatment Platelets <100,000; HCT<25% glucose <50 or>400 mg/dl Use of heparin within 48h and prolonged PTT, or elevated INR Rapidly improving symptoms Prior stroke or head injury within 3 months: prior intracranial hemorrhage Major surgery in preceding 14 days Minor stroke symptoms Gastrointestinal bieeding in preceding 21 days Recent myocardial infarction Como or stupor

Administration of Intravenous
Recombinant Tissue Plasminogen
Activator (rtPA) for Acute Ischemic Stroke (AIS)*

Administration of rtPA

Intravenous access with two peripheral IV lines (avoid arterial or central line placement)
Review eligibility for rtPA
Administer 0,9 mg/kg IV (maximum 90 mg) IV as 10% of total dose by bolus, followed by remainder of total over 1h
Frequent cuff blood pressure monitoring
No other antithrombotic treatment for 24 h
For decline in neurologic status or uncontrolled blood pressure, stop infusion, give cryoprecipitate, and reimage brain emergently
Avoid urethral catheterization for ≥ 2h.

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- Tratamento Antitrombótico – ASS 300mg/Clopidogrel 75mg

- Tratamento anticoagulante
- Hoje para prevenção TVP: Heparina ou Heparina LW

- Hemicraniectomia descompressiva (casos selecionados)

Obrigado!

Dr. Antonio Vinicius