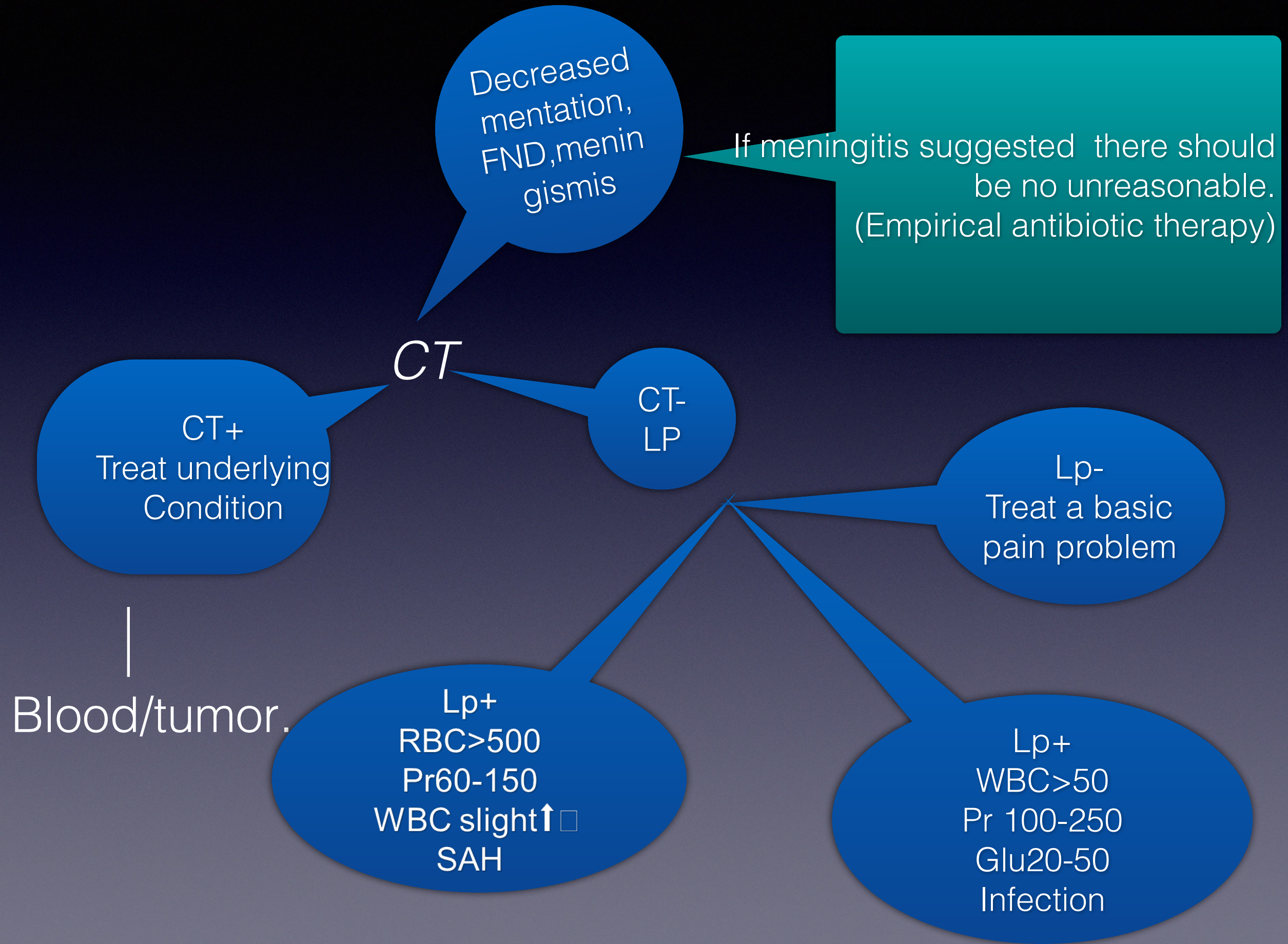




Headache management in emergency department
Dr.Shadi Zamanian
Neurologist

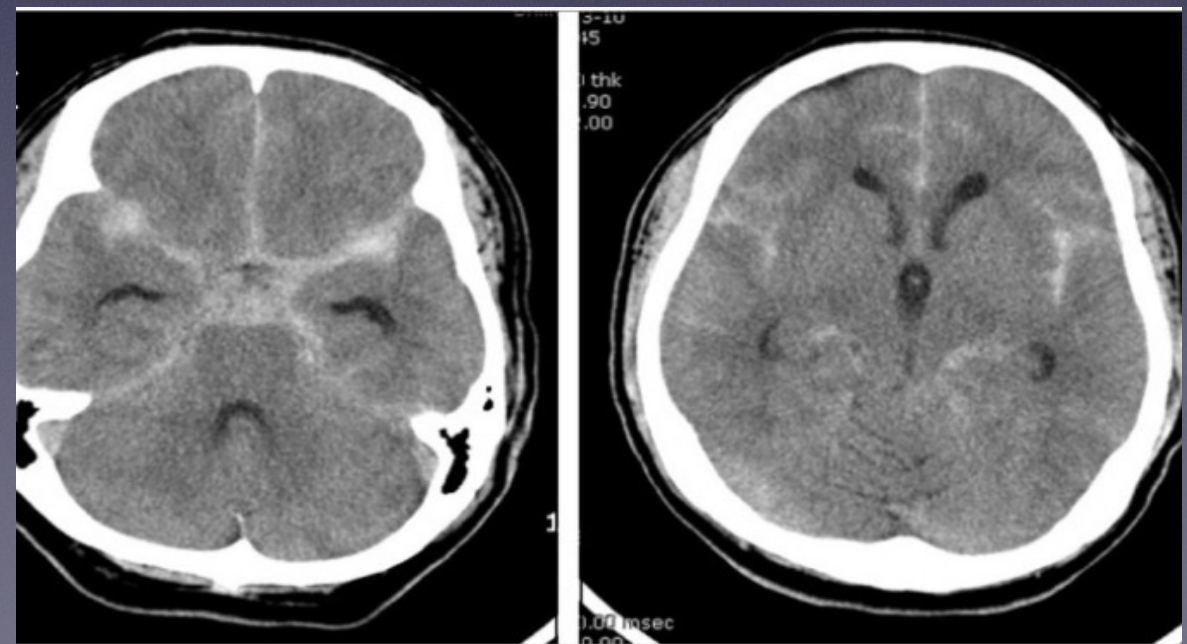
- *Headache in emergency neurology:*
- *SAH*
- *CVT*
- *Dissection of the cervical arteries*
- *Interacerebral hemorrhage*
- *Meningitis*
- *Temporal arteritis*
- *Status migraine*
- *Cluster headache*

Initial assessment of headache



Subarachnoid hemorrhage

- ***This is the fourth most frequent cerebrovascular disorder.***
- ***The hallmark of a SAH in a patient who is complaint **the worst headache of my life.*****
- ***Headache is characterized:extremely sudden,immediately reaching maximal,thunderclap***
- ***Nausea,Vomiting,stiff neck,photophobia,brief loss of consciousness,Seizure,FND***
- ***CT-LP-MRI-CTa***



Grade I. Asymptomatic or with slight headache and stiff neck

Grade II. Moderate to severe headache and nuchal rigidity but no focal or lateralizing neurologic signs

Grade III. Drowsiness, confusion, and mild focal deficit

Grade IV. Persistent stupor or semicomma, early decerebrate rigidity and vegetative disturbances

Grade V. Deep coma and decerebrate rigidity

Hunt and Hess grading

- ***CBR***
- ***Fluid administration***
- ***Ca channel blockers (Nimodipine) to reduce infarction from vasospasm appear 3-10 days after hemorrhage.***
- ***Beta-blockers :maintain SBP at 150 mmmHg***
- ***Pain relieving medication***
- ***The use prophylactic anticonvulsants may be considered in the immediate posthemorrhagic. The long-term use of drug is not recommended but: prior seizure, intracerebral hematoma, intractable HTN, infarction, MCA aneurysm***

approach to endovascular operate

G1,2
Operate the aneurysm
Early within 24 h

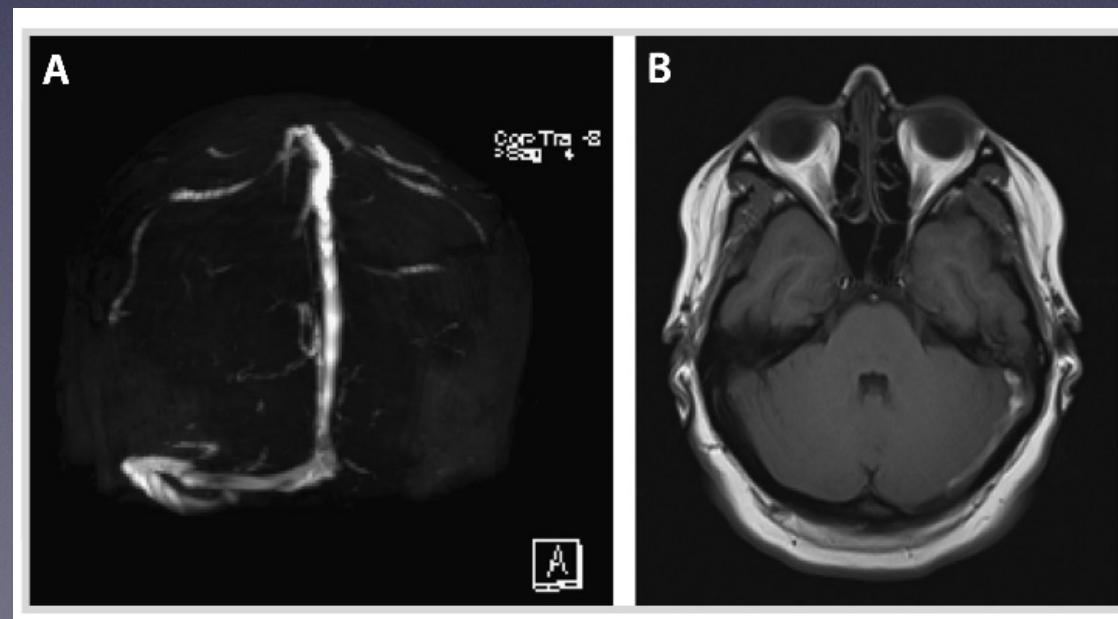
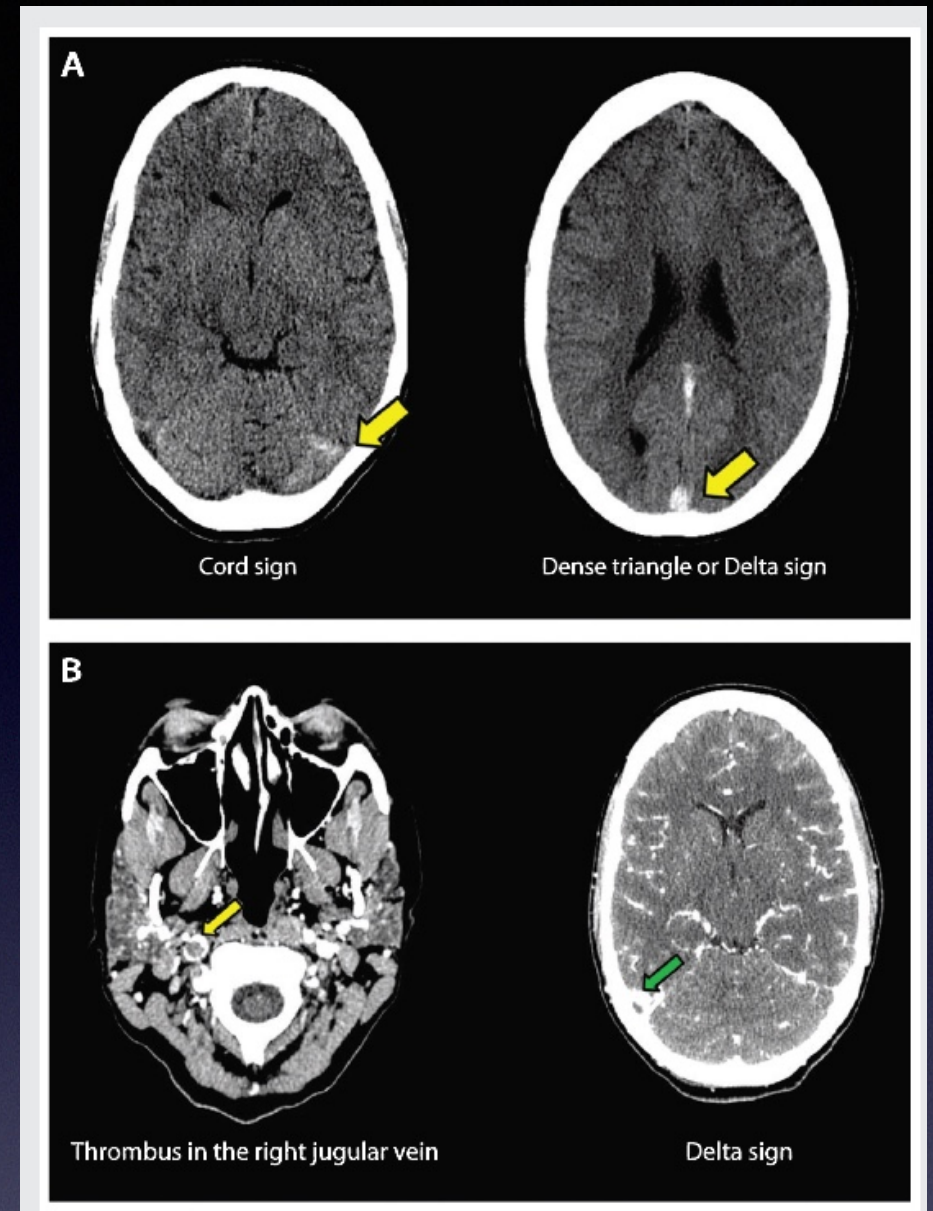
G3
Surgery controversial
Medical condition
allows ,benefit from early
and aggressive approach

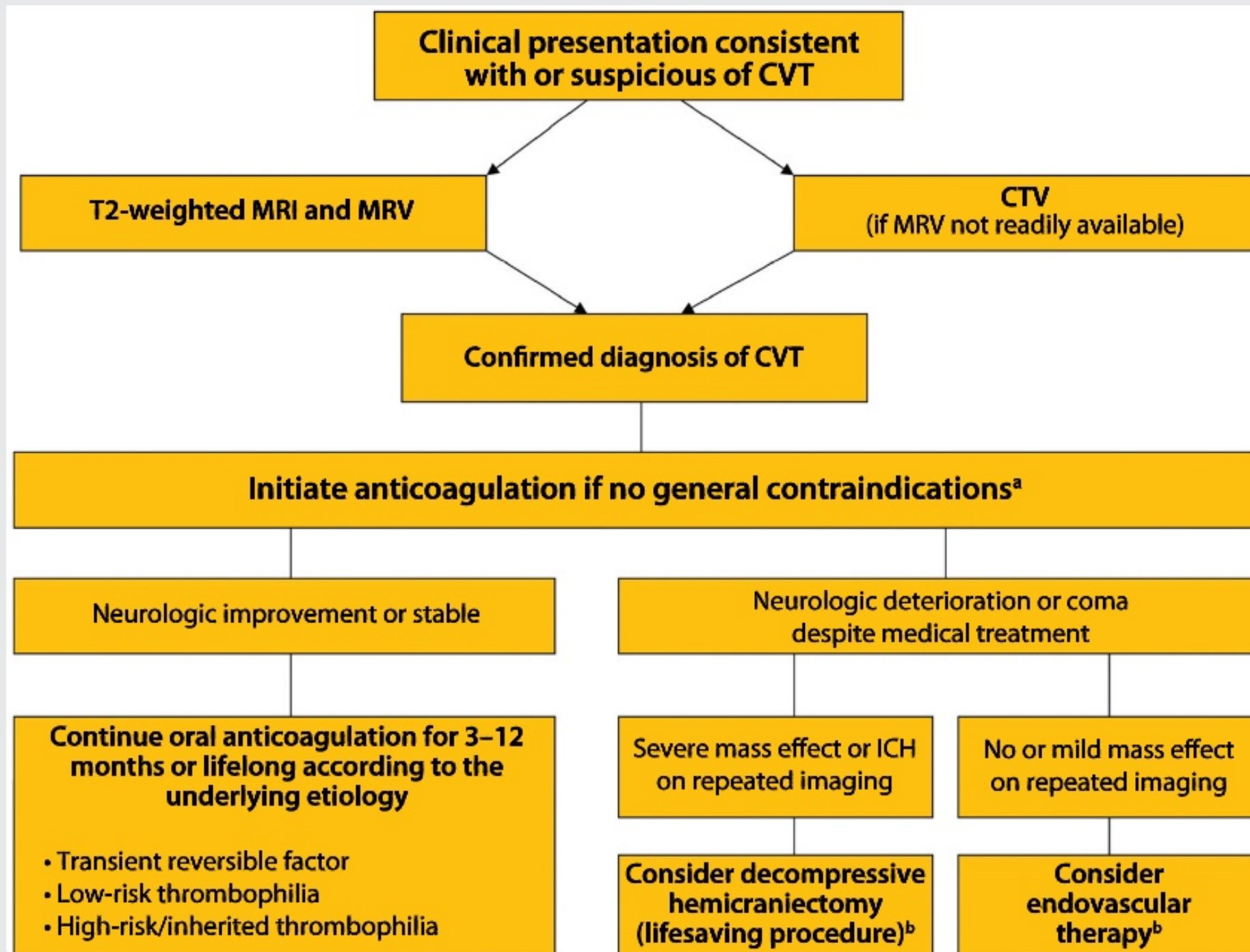
G4
Outcome is dismal
(Operation+/-)

Cerebral venous thrombosis

| Clinical Presentation | Frequency² |
|--|------------------------------|
| Headaches | 90% |
| Seizures | 40% |
| Focal deficit (eg, hemiparesis, aphasia) | 20% |
| Decreased level of consciousness | 14% |
| Isolated headaches ⁵ | 15% |
| Visual loss | 13% |

- **Diagnosis:**
- **D-dimer > 500**
- **CT: cord sign, delta sign**
- **MRI/MRV**





Dissection of the cervical arteries

- ***It is spontaneous event, whiplash injury, violent coughing, direct trauma to the neck and head.***
- ***Tunderclap headache, Horner syd, syncope, facial numbness, focal ischemic symptoms.***

Rapid and marked relief of the pain after the administration of c/s in a young person may be helpful Dx.

- ***Diagnosis:***

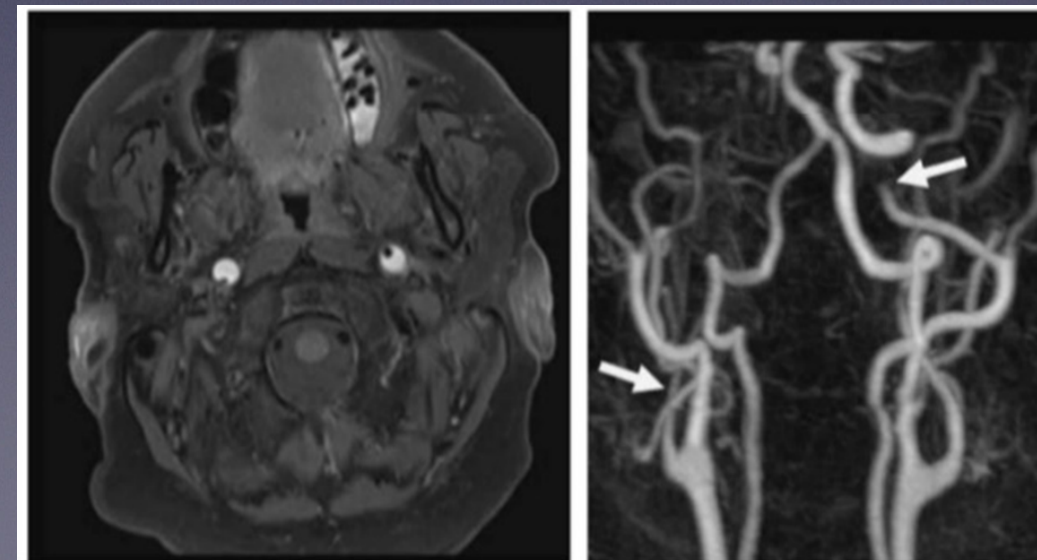
- ✓ ***Brian CT scan***

- ✓ ***Brian MRI***

- ✓ ***Cervical ultrasonography.Double lumen***

- ✓ ***Cervical CTA.string sing,flame***

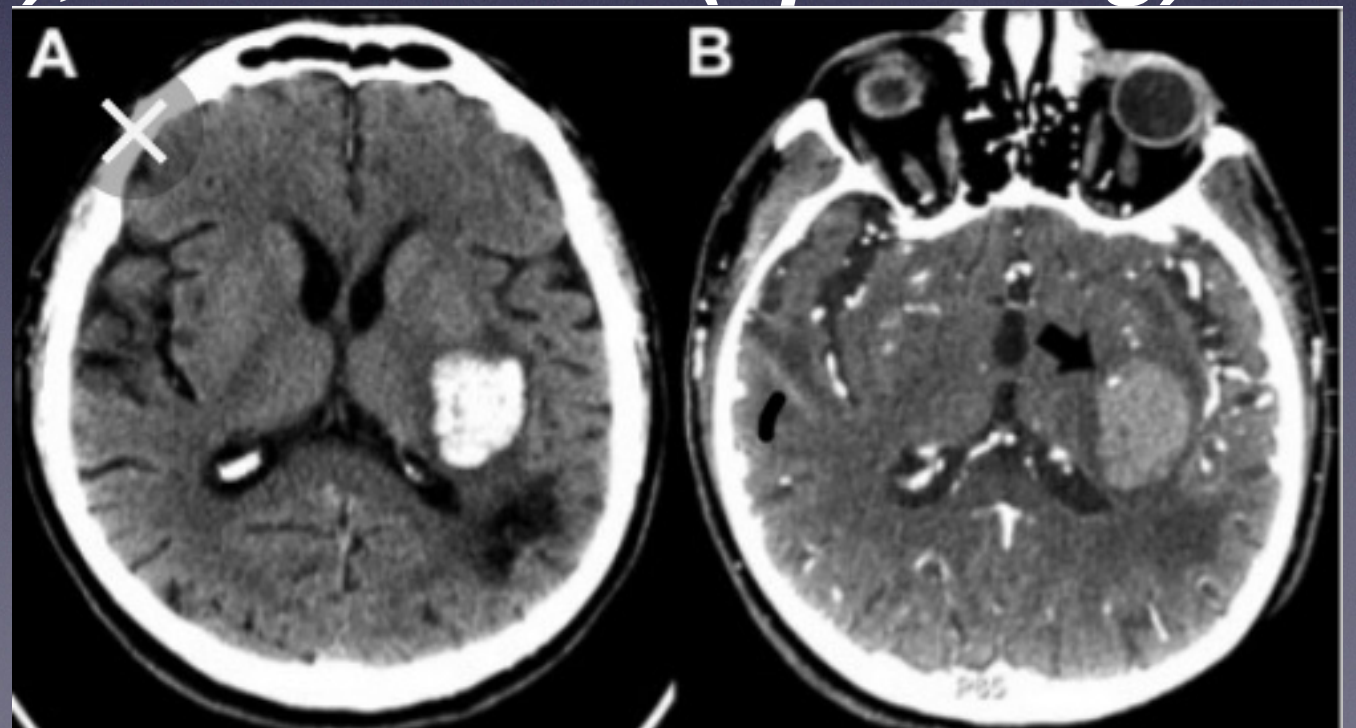
- ✓ ***MRA***



- ***Treatment:***
- ***Corticosteroid***
- ***Anticoagulant***
- ***Endovascular revascularization***

Intracerebral hemorrhage

- *Several general features of ICH:*
- *Acute reactive hypertension, vomiting, headache, stiff neck, seizure, coma (IVH .pressure midbrain)*
- *Headache, acute HTN and vomiting with hemiplegia in ICH cardinal features*
- *Diagnosis: CT, MRI (T1-GRE), Ct +contrast (spot sing)*



Treatment:

ICU care

Hemostasis: FFP, Vit K

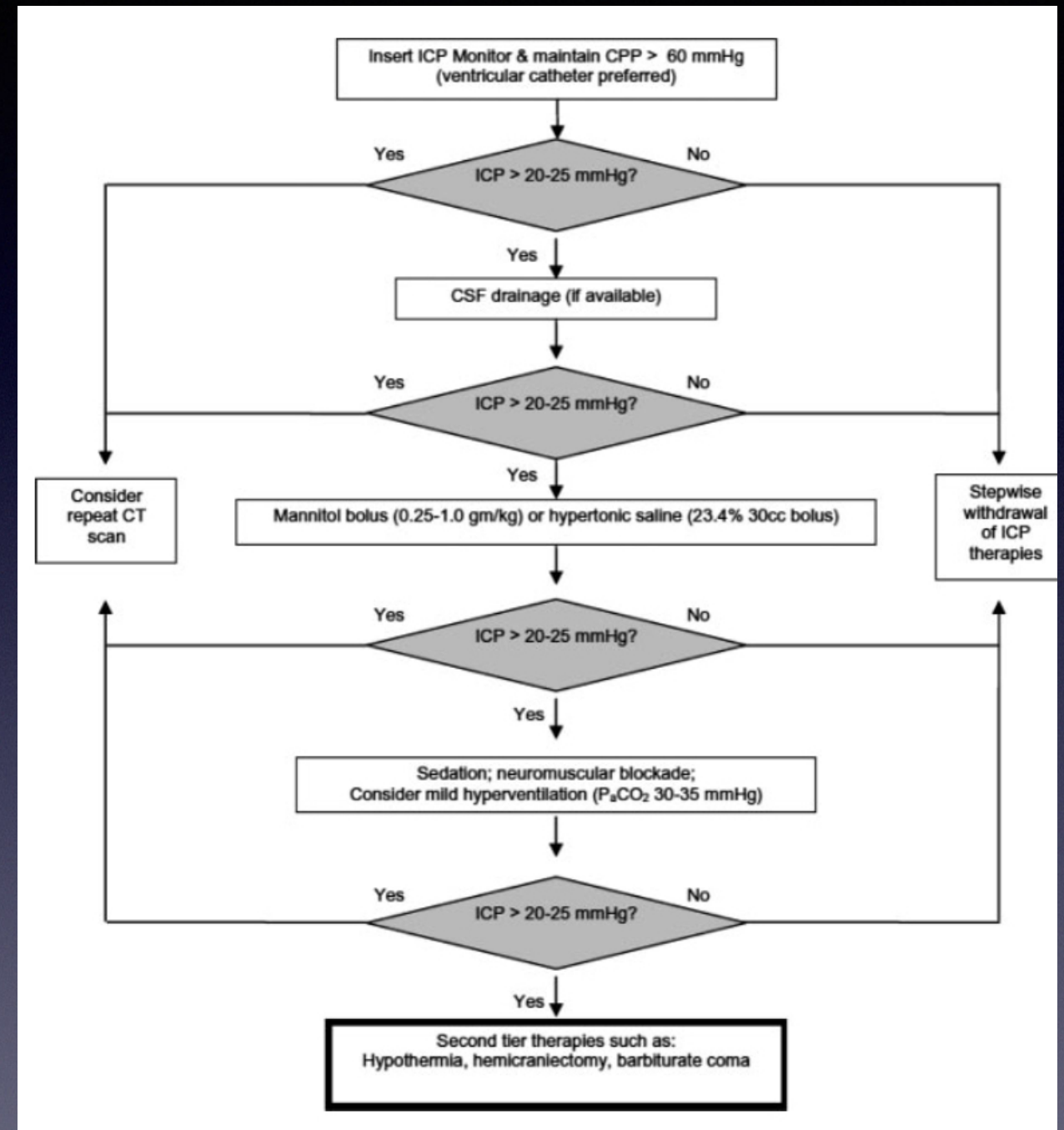
Bp: Rapid reduction of elevated Bp (140-160 sys)

Is not recommended. sys > 160 exaggerate cerebral edema that use beta blocking drugs (labetalol) or ACE. Gold target Bp < 140/90.





Glu: 80-110

Antiepileptic drug: clinical seizure, EEG abnormal

prophylactic antiepileptic medication should not be used.



Meningitis

- ***The early clinical effects of acute bacterial meningitis are fever,head,usually sev and stiffness of the neck and less often convulsions and a disorder of consciousness.***
- ***FND***  ***Pneumococcal M,H influenzae M***
- ***Seizure***  ***H influenzae M***
- ***Cranial N palsy.***  ***Pneumococcal M***
- ***Extremely rapid***  ***Meningococcal M***

- ***Diagnosis: lp***
- ***The first therapeutic measures are directed to sustaining blood pressure and treating septic shock.***
- ***Empiric therapy of***

| EMPIRIC THERAPY OF BACTERIAL MENINGITIS | |
|---|---|
| AGE OF PATIENT | ANTIMICROBIAL THERAPY ^a |
| 0–4 wk | Cefotaxime plus ampicillin |
| 4–12 wk | Third-generation cephalosporin plus ampicillin (plus dexamethasone) |
| 3 mo–18 y | Third-generation cephalosporin plus vancomycin (± ampicillin) |
| 18–50 y | Third-generation cephalosporin plus vancomycin (± ampicillin) |
| >50 y | Third-generation cephalosporin plus vancomycin plus ampicillin |
| Immunocompromised state | Vancomycin plus ampicillin and ceftazidime |
| Basilar skull fracture | Third-generation cephalosporin plus vancomycin |
| Head trauma; neurosurgery | Vancomycin plus ceftazidime |
| CSF shunt | Vancomycin plus ceftazidime |

- ***Corticosteroids:dexamethason 10 mg before first does of antibiotic and repeated q6h for 4 days. [very high CSF pressure ,sings of hernia,acute adrenal insufficiency]***
- ***Antiepileptic drugs need not be administered (seizure,CVT)***

Temporal Arteritis

>50yr, throbbing headache, loss of vision, jaw pain

ESR>50, CRP+, Bx+

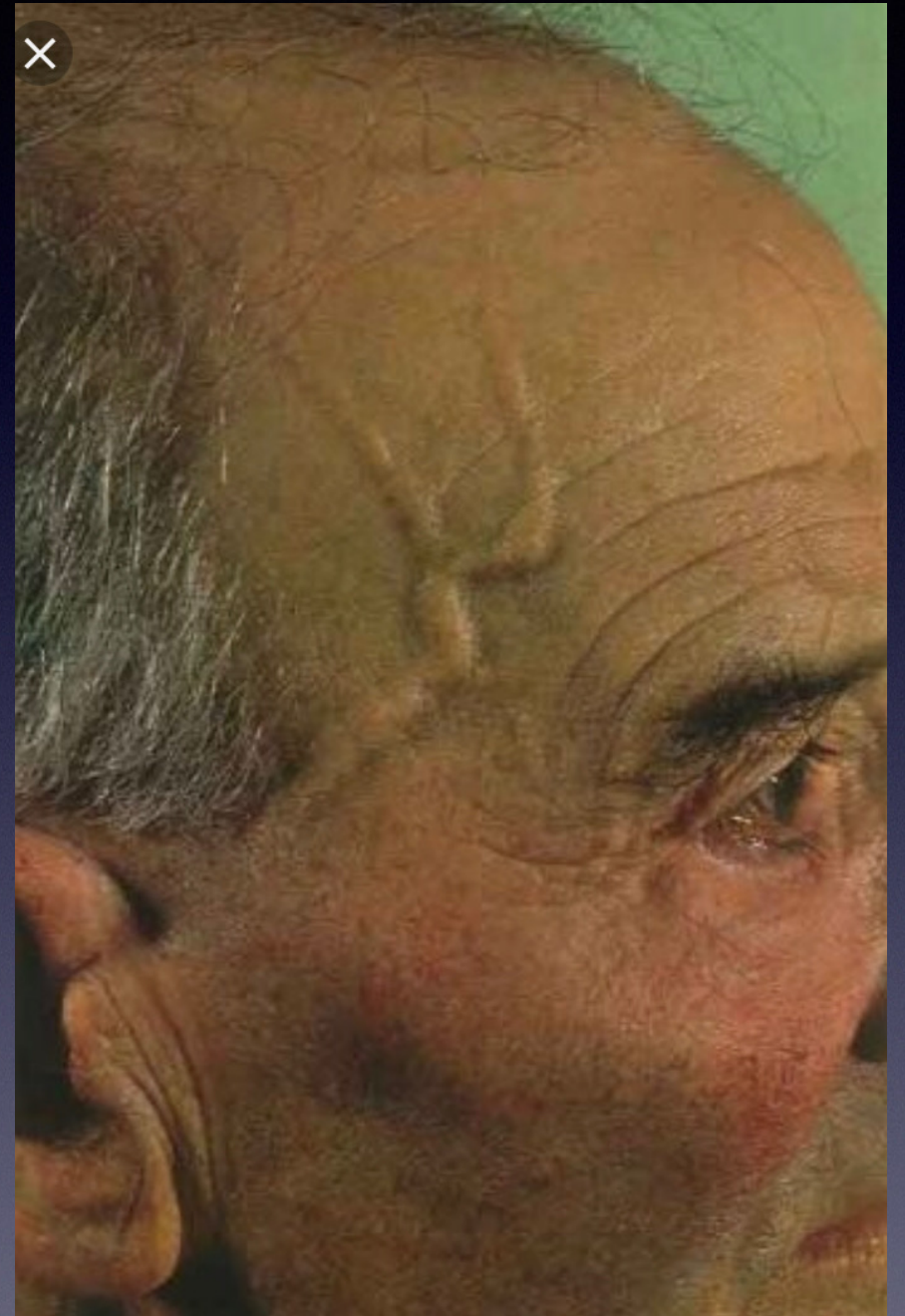
GCA

Loss of vision +

Loss of vision-

60-80mg/day
prednisolone+250 mg
hydrocortisone

40mg/day
prednisolone



Status migraine

- The present attack in a patient with migraine without aura headache following features:unremitting for>72 h,severe intensity
- Not attributed to another disorder.

IV fluid,normal saline

Metoclopramine

Ketorolac

Valproate-NA

Corticosteroid

Cluster headache

| Feature | Criteria |
|---------------------|---|
| Associated symptoms | At least one ipsilateral symptom in the eye, nose, or face; restlessness or agitation |
| Duration | 15 to 180 minutes (untreated)* |
| Frequency | One episode every other day to eight episodes per day* |
| Location | Unilateral in temporal or periorbital area |
| Pain quality | Severe, "suicide headache"* |



Treatment

➤ Acute CH

- 100% oxygen at 10–12 L/min for 15–20 min
- sumatriptan- Subcutaneous(6 mg) or intranasal

➤ Preventive treatment

- verapamil(160-960mg/day),methysergide(1-2mg tds),prednisolone(60-80mg/day tapering over 21 days),topiramate,lithium(400-800mg/day)(chronic cases) etc



***To fall in love with God the greatest of all
romances to seek him, the greatest
adventure to find him the greatest human
achievement .***