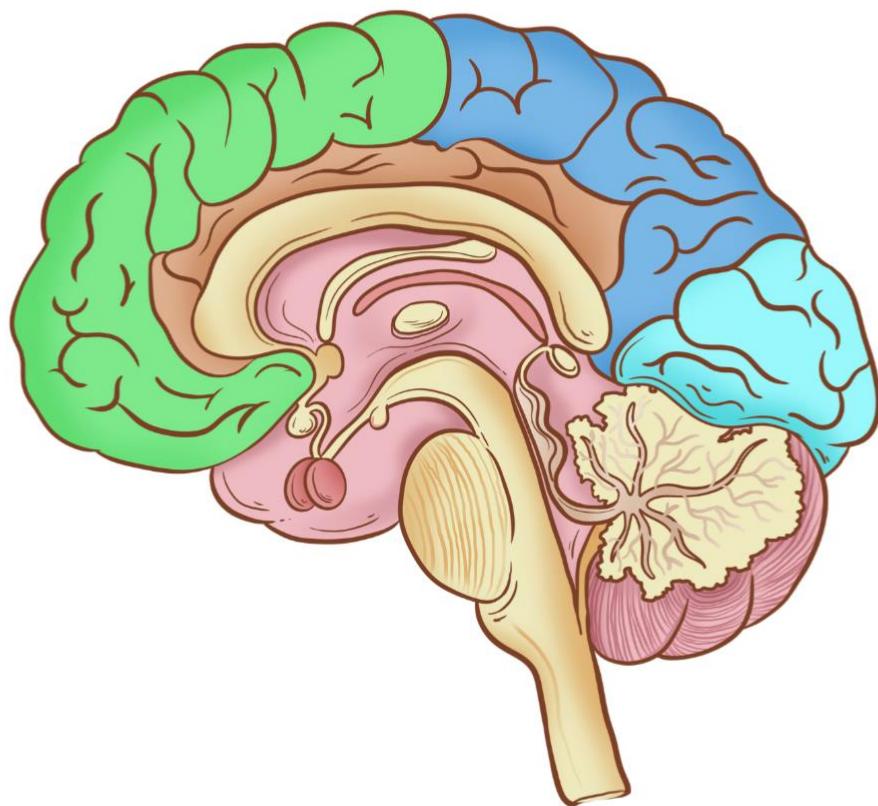


NEUROSCIENCE

022 mini-OSCEs

First semester



1st month

By: Maryam manasrah



Note: answers given below are suggested answers which may not be precise

Q1: patient suffering of two days duration both lower limbs weakness and urinary incontinence, there is loss of pinprick sensation and brisk reflexes more prominent on right side, two years ago she had an episode of painful eye movement and vision problems on left eye which resolved on its own after 4 weeks:

1. What is the most probable diagnosis:

Multiple sclerosis

2. Where is the lesion localized that explains her current symptoms:

Spinal cord bilaterally but more prominent on right side (right lateral corticospinal tract not sure)

3. What explains her previous episode:

Involvement of optic nerve (optic neuritis)

4. What investigations:

-Brain and spinal cord MRI

-CSF electrophoresis to investigate presence of oligoclonal bands

-Chest x-ray to exclude sarcoidosis

-ESR and CRP to exclude SLE

(other investigations mentioned in slides)

5. What would you give to treat her acute symptoms:

High dose steroids

IV/Oral methylprednisolone 1g/d for 3-5 days

Q2: 78-years old patient with diabetes and hypertension presented to ER with 10 hours duration of acute symptoms of left-sided weakness and loss of sensations, his CT image shown below:



1. Describe the radiological findings:

Ischemic stroke involving right MCA territory compressing the ventricle and causing midline shift

2. Menetrie 3 findings on physical examination:

- left side hyperreflexia more prominent on upperlimbs
- left side hemineglect
- left Babinski sign

3. Menetrie 3 imaging types that the patient must undergo:

- Brain CT
- Brain MRI
- Head and neck MRA

4. Menetrie 3 management steps:

- stabilize patient by giving glucose with thiamine, hydralazine and checking O2 saturation
- give 300mg Aspirin
- manage risk factors like diabetes and HTN but Blood pressure should not be lowered in the acute phase unless there are complications such as Hypertensive Encephalopathy.

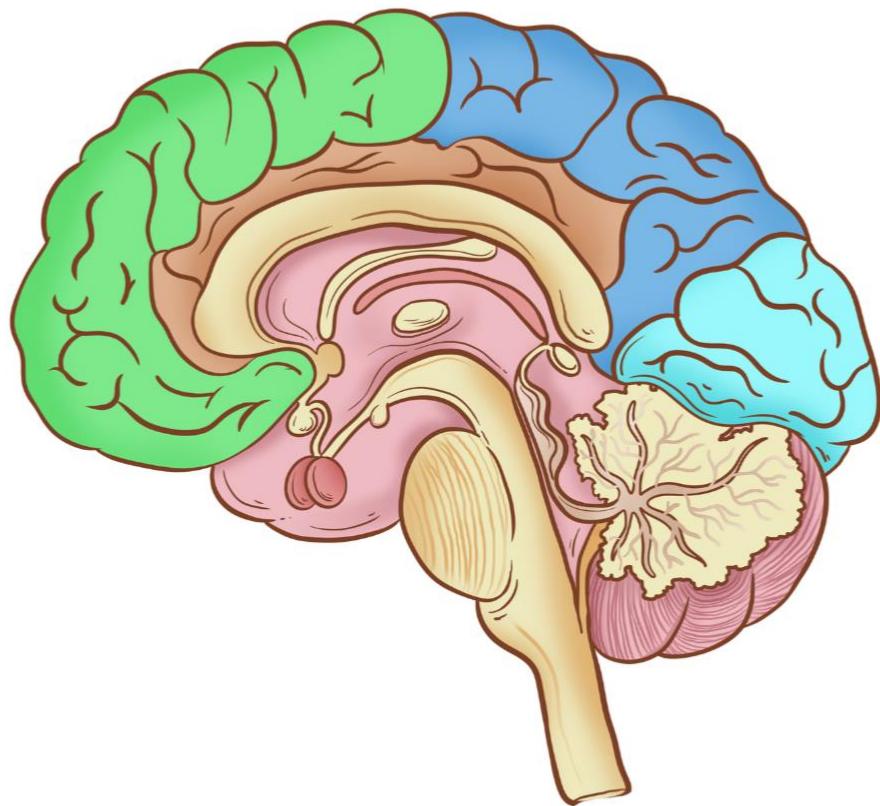
5. Patient was referred back to ER after an episode of body stiffening followed by jerky movements which resolved on its own after 2 minutes menetrie two medications patient should take with proper doses:

(not sure!!) phenytoin (15-20 mg/kg) sodium valproate (20-30 mg/kg)

NEUROSCIENCE

022 mini-OSCEs

First semester



2nd month

By: Yara Emad



Q1) A 60ish year old man with poorly controlled diabetes and hypertension was brought to the ER unresponsive. On examination his eyes were open and he could blink on command, he had no verbal response and some extensor posturing to painful stimuli. He was afebril,____?, HR 93 BP 190/90?

1. Describe the state of consciousness in this patient, and what can it mimic? (2 points)
2. Mention 2 causes for this presentation (4 points)
3. Mention 4 physical exam findings? (4 points)
4. Mention 4 imaging studies used to evaluate this patient? (4 points)
5. 5. The artery most likely involved? (1 point)

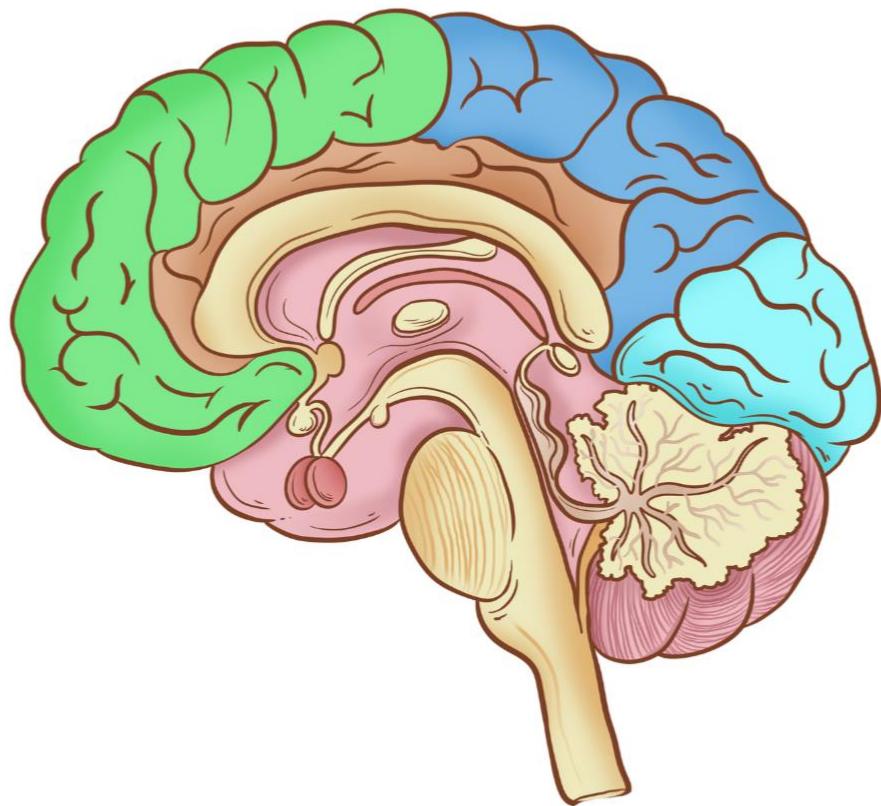
Q2) A 16 yo male presented with abnormal writhing and twisting movements of the arms face jaw,... that lead to abnormal posture. He was previously medically free and has no family history, labs: he had high AST that has not yet been investigated.

1. Describe the movement (1 point)
2. Mention 3 conditions/causes for this presentation (3 points)
3. What are 3 features unique to this movement (3 points)
4. Which is the most likely diagnosis for this patient (1 point)
5. Mention 5 clinical findings in this most likely diagnosis (5 points)
6. Explain the pathophysiology of this condition (2 points)

NEUROSCIENCE

022 mini-OSCEs

First semester



3rd month

By: Sara Allam



Note: the answers given below are suggested answers which may be not precise

Q1) A 25 years old female patient with systemic lupus erythematosus is on prednisolone 1.5 mg a day for treatment. She developed headache, malaise, chills, rigors and fatigue over 4 days. In the past 12 hours she started to become irritable and had behavioral/ cognitive changes .

Vitals: temp: 39.2 HR:110 BP:118/72 RR:20 O2 sat:98%

1- what is the finding on the CT scan? (1 mark)

Normal brain CT with some calcification of choroid plexus



2- what is the most likely diagnosis? (1 mark) Acute

meningitis (most commonly listeria due to immune compression from steroids?)

3- What are four signs u expect to see on physical examination? (4 marks)

Neck stiffness (nuchal rigidity), +ve brudinski sign, +ve kernig sign, purpuric skin rash, (photophobia?)

4- what investigation should be done to determine the diagnosis and what results do you expect to get ? (6 marks)

Lumbar puncture (LP)

Bacterial meningitis CSF shows : high protein, low sugar, high lactate, turbid fluid with polymorphs , high pressure

5- what medications should be immediately started ? (3 marks)

IV Ceftriaxone 2mg daily or IV cefotaxime 8-12mg daily , vancomycin 2mg ampicillin 12mg, gentamicin (because listeria is suspected)

Q2) A 75 years old patient who has diabetes and hyperlipidemia was brought to the clinic with his son complaining that his father is forgetting names of close people and misplaces objects. While talking to him to take history u notice that he has difficulty expressing verbally.

1- what is the most likely diagnosis? (2marks)

Alzheimer's disease?

Dementia? (May be vascular due to risk factors)

(Not sure)

2- what are 4 reversible causes of this condition? (4 marks)

Drugs, encephalitis, B12 deficiency, CNS vasculitis, autoimmune encephalopathy?, toxins, metabolic imbalance (not sure)

3- give 3 changes u expect to see on imaging? (3 marks)

Atrophy of frontal lobe, temporal lobe and hippocampus, enlarged ventricles due to atrophied surrounding tissue

4- what functions should be tested in this patient? (4 marks)

Memory, language, visuospatial, executive functions

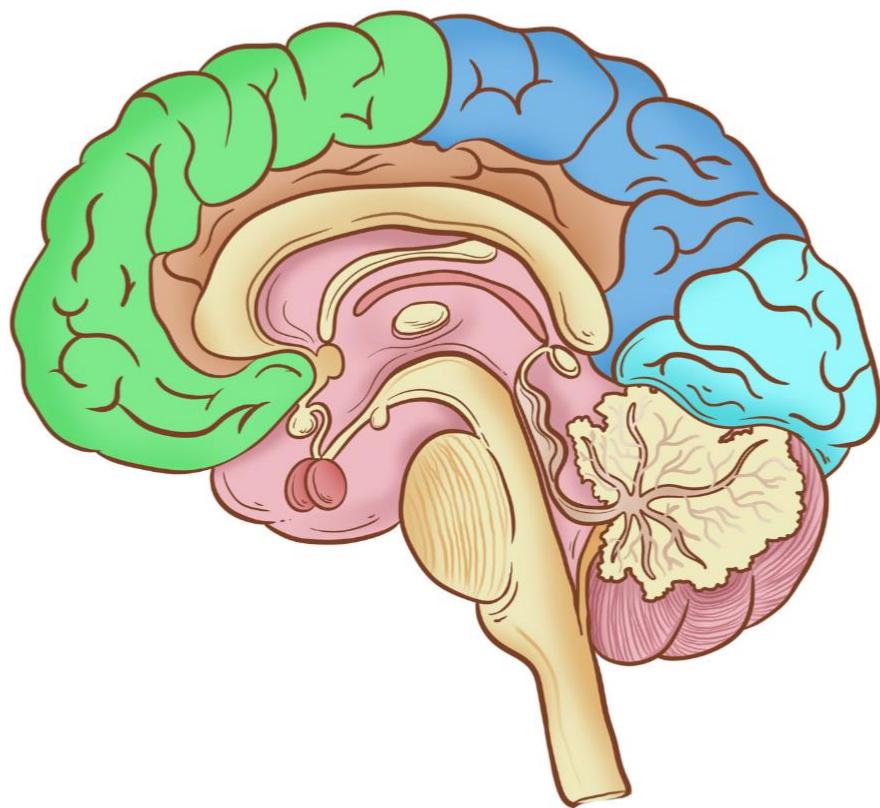
5- the son told u that he noticed his father was developing upper limb rigidity, slow movement and he stated seeing people who are not there, what is the most likely diagnosis knowing that ? (2 marks)

Parkinson diseases?

Dementia with Lewy bodies?

NEUROSCIENCE 022 mini-OSCEs

First semester



4th month

By: Sara Allam & Jana Alkhraisat



Q1) Myasthenia Gravis case:

1- What to expect in Brain MRI?

Normal

2- Clinical feature of weakness in the patient?

Fatigable weakness

3- List the muscles associated with difficulty swallowing liquids?

Bulbar muscles, Palat tongue jaw, Facial muscles

4- List six investigations for this case?

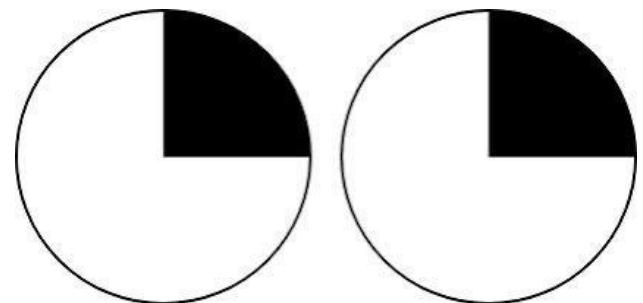
Orbital ice test, Iv edrophonium test, Acetylcholine receptor antibody, Anti muscle specific kinase antibody, Chest CT for thymoma, Repetitive nerve stimulation

5- List 3 long term treatment for this case?

Acetylcholinesterase inhibitor, Steroids, Rituximab

6- Mention 3 characteristics of lower limb weakness?

Proximal more than distal, upper more than lower, usually symmetrical, usually triceps and quadriceps are involved



Q2) Stroke case:

1- Describe the photo?

Right upper homonous quadratopia

2- What is damaged in the optic pathway?

Left lower fibres of optic radiation in the temporal lobe

3- 2 medications as prophylactic treatment for the patient?

Dual anti platelets (Aspirin + Clopidogrel)

4- 4 imaging studies other than CT?

?

5- 4 managements for stroke patient?

?