

# CNS MEDICINE

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## 1. VASCULITIS

1. A 72 year old woman is recovering from an episode of temporal arteritis. She is due to be discharged of a gradually decreasing dose of prednisolone tablets. She is being counselled on the risk of stopping the tablets suddenly. Which single symptoms should this patient be warned to expect if she stops her tablets suddenly?

- Abdominal pain
- Depression
- Dizziness on standing
- Fits
- Weakness in upper arms and thighs

2. A 48 year man comes with severe headache, dimness of vision and tenderness of temporal arteries on both sides, what should be the approach?

- Do an ESR first
- Get his temporal artery biopsed and wait for the result
- Get a CT scan brain
- Start steroids
- Seek ophthalmological consultation

## 2. NEUROLOGICAL DISORDERS

1. A 32 year old man has been dribbling saliva from the right side of his mouth and having difficulty in closing his right eye over the last 48 hours. His wife has noticed that his face is drooping on the same side. He has normal facial sensation but can not raise his eyebrow on the right side. Which is the single most appropriate next step?

- No treatment
- Start oral acyclovir
- Start oral acyclovir + oral prednisolone
- Start oral prednisolone
- Urgent MRI head scan

2. A 34 year old man has been dribbling out of the right side of his mouth for 12 hours. He thought the television was particularly loud this morning. Whilst his wife has commented that his face is lopsided and he looks like as he is grimacing rather than smiling. Which single feature in the examination confirms the most likely diagnosis?

- Asymmetry of the oropharynx
- Difficulty breathing
- Discharge from his ear
- Ipsilateral breathing
- Unilateral eyebrow raise

3. Which one of the following scenarios requires urgent neurological investigations?

- Internuclear ophthalmoplegia
- Sudden onset foot drop
- Seventh nerve palsy with onset over several days
- Sudden onset cerebellar syndrome
- Painless incomplete third nerve palsy



4. A 69-year old man has a 6 month history of progressive difficulty with ambulation. Examination of his gait reveals that the feet appear glued to the floor and that he has great difficulty initiating movement. Once he starts walking, his gait is a halting, frequently broad-based movement that is done more easily with guidance and support. Retropulsion does occur and he has difficulty turning. The most likely cause of this gait disorder is:

- a. Vestibular disease
- b. Cerebellar disease
- c. Sensory deprivation
- d. Frontal lobe disease
- e. Corticospinal tract disease

5. 20 year old college student presents with deteriorating gait for the last one week. He has history of upper respiratory tract infections. On examination there is lower limb weakness and reflexes are absent. There are non sensory signs. The most likely diagnosis is

- a. Guillain barre syndrome
- b. Chronic inflammatory poly neuropathy
- c. Porphyrria
- d. Charcot Marie Tooth disease
- e. AIDS

6. A 72 year old man is brought to the emergency room by his wife because of confusion. He abruptly became confused eight hours ago while working with her in the garden. He has had no alteration in consciousness and when examined alert and seemingly frustrated with this problem. Physical examination shows vital signs to be normal. The patient knows his name and his wife's name, but does not know where he is, the date or the time. He is alert and attentive and has a normal neurologic examination. The most likely diagnosis is

- a. Hysteria
- b. Hepatic encephalopathy
- c. Transient global amnesia
- d. Partial complex status epilepticus
- e. Absence(petit mal) status epilepticus

7. A 48 year old dentist consults you because of tremor which is interfering with his work. The tremor has come on gradually over the past several years and seems more prominent after the ingestion of caffeine, he notices that in the evening after work, an alcoholic beverage will decrease the tremor. Except for the tremor, his neurological examination is normal, in particular there is no focal weakness, rigidity and bradykinesia. When he holds out his arms and extends his fingers, you detect a rapid fine tremor of both hands, the tremor goes away when he rests his arms at his side. What is the best next step in the management of this patient?

- a. MRI scan to visualize the basal ganglia
- b. Electromyogram and nerve conduction studies to more fully characterize the tremor
- c. Therapeutic trial of propranolol
- d. Therapeutic trial of primidone
- e. Neurology referral to rule out motor neuron disease

### 3. PARKINSON'S DX

1. A 61 year old man presents with a six month history of progressive unilateral stiffness and bradykinesia together with a resting tremor. Which treatment option is most appropriate?

- a. Levodopa treatment alone
- b. Levodopa and carbidopa combined
- c. Dopamine agonist alone
- d. Selegiline alone
- e. No treatment should be given until the patient is functionally disabled

2. Which of the following signs is not indicative of Parkinson's disease?

- a. Rigidity
- b. Bradykinesia
- c. Micrographia
- d. Action tremor
- e. Loss of postural reflexes

3. A 60 year old patient with Parkinson disease presented with worsening of her tremors and rigidity. She confirms that she takes



levodopa/carbidopa at regular intervals. Her doctor reports that this is off/on phenomenon for this drug. He replaced this drug with which of the following drugs?

- a. Amantadine
- b. Pramipaxole
- c. Rasagiline
- d. Entacapone
- e. Procyclidine

4. Your friend from swat brings his grandfather for inability to go downhill and a tendency to fall. On examination he has expressionless face, tremors and poverty of movements. What treatment options do you have for his treatment?

- a. Amantadine
- b. Physical therapy
- c. Levodopa
- d. Anticholinergic
- e. All of them

5. A 70 year old patient presents with bradykinesia, resting tremors, cogwheel rigidity and mask like face. Which one of the following is used for diagnosis of this condition?

- a. CT scan brain
- b. EEG
- c. Lumbar puncture
- d. Nerve conduction studies
- e. Clinical features

6. Each of the following has been implicated in producing parkinsonism except

- a. MPTP
- b. Reserpine
- c. Haloperidol
- d. Chlorpromazine
- e. Trihexyphenidyl

#### 4. STROKE SYNDROME

1. A 69 year old woman has had a stroke. Her left upper and lower limbs are paralyzed and she is

having difficulty in speaking. Which anatomical site is most likely affected?

- a. Hippocampus
- b. Cerebellum
- c. Internal capsule
- d. Thalamus
- e. Brain stem

2. A 54-year old man has collapsed suddenly following a headache. He has hypertension and takes warfarin for prosthetic heart valve. GCS = 4 and dilated left pupil. What is the single most likely diagnosis?

- a. Anterior circulation stroke
- b. Posterior circulation stroke
- c. Intracerebral hemorrhage
- d. Intracerebellar hemorrhage
- e. Pontine hemorrhage

3. A 54-year old man with cerebrovascular accident presents with ataxia, intention tremors and slurred speech. Which part of the brain is affected by the stroke?

- a. Inner ear
- b. Brain stem
- c. Diencephalon
- d. Cerebrum
- e. Cerebellum

4. A 67 year old man has been brought into the emergency department in the early hours of the morning with a head injury following a fall at home 30 minutes ago. All he remembers is finding himself on the floor, he is not sure whether he lost consciousness. Which single feature should prompt a request for an urgent CT head scan?

- a. He fell down two flights of stairs
- b. He has vomited twice since the fall
- c. He is more than 65 years old
- d. He suffers from epilepsy
- e. His Glasgow Coma Scale Score (GCS) is currently 14



5. Which of the following statements concerning subarachnoid hemorrhage is incorrect?

- a. Inappropriate antidiuretic hormone secretion frequently occurs
- b. Electrocardiographic abnormalities stimulating myocardial infarction frequently occur
- c. Vasospasm is the usual cause of initial lateralizing signs
- d. CT scan of the brain frequently identifies blood in the subarachnoid space
- e. The prognosis for a ruptured aneurysm is worse than for a bleeding arteriovenous malformation

6. A 60 year old patient presents to you with right hemiplegia, right hemisensory loss and aphasia for the last 12 hours. What would be your first management step?

- a. Start aspirin
- b. Do an MRI brain
- c. Do a non-contrast CT brain
- d. Give Tpa
- e. Refer to a neurosurgeon

7. A 60 year old patient with hypertension comes to you with recurrent ischemic strokes. He is on aspirin 75mg and statins. Which of the following is indicated?

- a. Clopidogril
- b. Dipyridamole
- c. Increase aspirin to 150mg
- d. Diclopidine
- e. Warfirin

8. A 60 year old hypertensive patient poorly compliant with medicines complains of sudden severe headache and fall unconscious. On examination he is deeply comatose with normal reacting pupils, bilateral upgoing planters, positive neck stiffness and BP 180/120 mmHg. What is the most likely diagnosis?

- a. Cerebral infarction
- b. Subarachnoid hemorrhage
- c. Acute meningitis
- d. Hypertensive encephalopathy
- e. Brain tumor

9. In a patient with cerebral infarction and atrial fibrillation, which is the most appropriate investigation

- a. Lipid profile
- b. Brain angiography
- c. EEG
- d. Echocardiogram
- e. Carotid Doppler

10. A 60 years old patient presents to you with hemiplegia, right hemisensory loss and asphasia for the last 12 hours. What would be your first management step?

- a. Start aspirin
- b. Do MRI brain
- c. Do a non-contrast CT brain
- d. Give tPA
- e. Refer to a neurosurgeon

11. A young man of 25 presented to the emergency department with severe headache, vomiting and confusion of sudden onset. On examination his BP is 180/110mmHg. Signs of meningism present. Temperature is normal. GCS score is 9/15 . What is the most likely diagnosis?

- a. Acute pyogenic meningitis
- b. Subarachnoid hemorrhage
- c. Cerebrovascular accident
- d. Brain tumor
- e. Cerebral malaria

12. An 80 year old man presents to the physician with sudden onset weakness of right side of the body and loss of speech. He has been hypertensive for 10 years with poor drug compliance.

- a. Subarachnoid hemorrhage
- b. Right frontal lobe infarct
- c. Left parietal lobe infarct
- d. Intracranial tumor
- e. Left cerebellar stroke



13. A 35 year old previously healthy woman suddenly develops a severe headache while lifting weights. A minute later she has transient loss of consciousness. She awakes with vomiting and a continued headache. She describes the headache as "the worst headache of my life". She appears uncomfortable and vomits during the physical examination. Blood pressure is 140/85, pulse rate is 100/min, respirations are 18/min and temperature is 36.8 degrees. There is neck stiffness. Physical examination including careful cranial nerve and deep tendon reflex testing, is otherwise normal. Which of the following is the next best step in evaluation?

- CT scan without contrast
- CT scan with contrast
- Cerebral angiogram
- Holter monitor
- Lumbar puncture

#### 5. MENINGITIS

1. A 74 year old female presents with headache and neck stiffness to the ED. Following a LP the patient was started on ceftriaxone. CSF culture = *Listeria monocytogenes*. What is the appropriate treatment?

- Add IV amoxicillin
- Change to IV amoxicillin + gentamicin
- Add IV ciprofloxacin
- Add IV co-amoxiclav
- Continue IV ceftriaxone as monotherapy

2. The following CSF findings are compatible with which of the following diagnosis. Proteins 110mg/dl (upto 44mg/dl), cells 150/mm<sup>3</sup> (upto 4/mm<sup>3</sup>) with 90% lymphocytes, glucose 20mg/dl (60-80mg/dl)

- Pyogenic meningitis
- Viral meningitis
- Tuberculosis meningitis
- Encephalitis
- Cerebral malaria

3. A 16 year old girl was brought to hospital with 4 days history of fever, headache, vomiting and impaired consciousness. O/E, temperature was 102°F and she had nuchal rigidity. CSF showed pressure of 25cm H<sub>2</sub>O, WBC 220/u/l with predominant lymphocytosis, proteins 88mg/l, Glucose of 70mg/dl. Her blood sugar was 120mg/dl. What is the most likely diagnosis?

- Acute viral meningitis
- Acute bacterial meningitis
- Tuberculous meningitis
- Fungal meningitis
- Aseptic meningitis

4. A young lady presented with fever, headache and confusion of 3 days duration, her CSF examination revealed proteins of 650mg/dl, glucose 20mg/dl, cells 3500/cmm, mostly polys. Gram's stain of the CSF shows Gram negative intracellular diplococci.

- Cerebral malaria
- Viral meningitis
- Tuberculous meningitis
- Meningococcal meningitis
- Fungal encephalitis

#### 6. MOTOR NEURON DX

1. A 65 year old man with difficulty in swallowing presents with an aspiration pneumonia. He has a bovine cough and fasciculating tongue. Sometimes as he swallows food it comes back through his nose. Choose the single most likely cause of dysphagia from the given options:

- Bulbar palsy
- Esophageal carcinoma
- Pharyngeal pouch
- Pseudobulbar palsy
- Systemic sclerosis

2. A 50 year old man is diagnosed with amyotrophic lateral sclerosis. Which of the following statement about this disease is correct?

- There is usually a long history of remissions and exacerbation



- b. Patient develops sensory loss following a dermatomal distribution
- c. Many patients have focal seizure
- d. There is degeneration of both upper and lower neuron
- e. Treatment can effectively stop further progression

## 7. EPILEPSY/SEIZURE

1. A 44 year old man attends a pre-assessment clinic prior to the laproscopic repair of his umbilical hernia. He has epilepsy and has been taking sodium valporate 600mg PO twice daily for the past 5 years. Which single examination should be performed prior to surgery?

- a. Blood levels of sodium valporate
- b. Clotting profile
- c. Fasting venous blood glucose
- d. Full blood count
- e. Urea and electrolytes

2. 20 year old male gives history of blank episodes. His wife describes that these occur while he is talking. He stops talking and make groaning noise. He makes lip smacking noises and swallowing emotions. His right hand is clenched in a fist. His right hand often pulls at the bottom of the shirt. The most likely diagnosis is

- a. Grand mal epilepsy
- b. Strokes adam attack
- c. Temporal lobe epilepsy
- d. Absence seizures
- e. Pseudo seizure

3. Which metabolic state is not a cause of seizure?

- a. Hyponatremia
- b. Hypernatremia
- c. Hypoxia
- d. Hypocalcemia
- e. Hypokalemia

4. When would you treat a seizure for the first time as epilepsy on long term therapy?

- a. With tongue bite
- b. An observed seizure
- c. In people above the age of fifty

- d. Abnormal EEG
- e. Partial seizure

5. A 26 year old known epileptic woman on antiepileptic drugs for last 2 and a half years delivered a baby with a cystic lesion on the back which is translumination positive. What is the cause of the condition?

- a. Maternal folic acid deficiency secondary to anti-epileptics
- b. Fetal folic acid deficiency secondary to maternal deficiency caused by anti-epileptics
- c. BU deficiency in fetus secondary to anti-epileptics
- d. EBV infection transmitted from vulnerable mother because of anti-epileptic drugs
- e. None of the above

6. A 28 year old woman lost consciousness at home an hour ago and is brought in to the emergency department. She has no previous medical history and this has never happened previously. Her mother is worried that she has had a fit which single feature from the history is most likely to confirm her mother's concerns?

- a. Biting the end of her tongue
- b. Feeling tired and wanting to sleep
- c. Incontinence of urine
- d. Still being confused when the ambulance arrived
- e. Twitching after she fell to the ground

## 8. NEUROGENERATIVE DISORDER

1. You are asked to see a 30 year old man . He has increasing problems with his walking since he was 11 years old. He has dysarthria and nystagmus. He has become increasingly breathless for the last 6 weeks. On examination he has signs of cardiac failure but no murmur. CXR shows cardiomegaly and pulmonary edema, the most likely diagnosis is

- a. Freidrich ataxia
- b. Spinocerebellar ataxia
- c. Charcot Marie Tooth disease
- d. Alcoholic cardiomyopathy
- e. Cerebellar tumour



2. The following symptoms/signs are compatible with the diagnosis of Guillain Barre syndrome

- a. Absent vibration sense
- b. Weakness of limbs
- c. Parasthesia
- d. Absent reflexes
- e. Difficulty in breathing

3. A young man develops a weakness of both the lower limbs for 6 days. It was preceded by acute gastroenteritis 2 weeks ago. The weakness has progressed to affect upper limbs since yesterday. On examination both the knee and ankle jerks are absent. Sensations are intact in all the limbs.

- a. Spinal cord transaction
- b. Diphtheria
- c. Poliomyelitis
- d. Pott's disease
- e. Guillain barre syndrome

4. Patients with Guillain barre syndrome may develop respiratory failure especially in the acute phase. Which one of the following is used for monitoring respiratory function in these patients?

- a. Forced vital capacity
- b. CT scan chest
- c. EMG
- d. Arterial blood gases
- e. Chest

5. A 72 year old man has progressive difficulty with balance together with abrupt falling, slurred speech, dysphagia, emotional lability and vague changes in personality. When examined he can not voluntarily gaze upward or downward; however, fixation of the eyes on a target, followed by tipping the head up and down, shows that the eyes move. Optokinetic and caloric induced tests fails to demonstrate the fast component of the resulting nystagmus. The neck is stiff and extended and the limbs show some cogwheel rigidity. The face is expressionless and the gait is festinating. When pushed, the patient topples over easily. Finger to nose dysmetria is absent. Which of the following is the most likely diagnosis?

- a. Parkinson's disease

- b. Striatonigral degeneration
- c. Dystonia musculorum deformans
- d. Progressive supranuclear palsy
- e. Olivopontocerebellar degeneration

## 9. ALZ / DEMENTIA

1. 70 year old female presents with confusion, complex visual hallucinations of people and animals and dementia. On examination there is significant postural drop of BP, mini mental score of 20/30, cogwheel rigidity and bradykinesia, the most likely diagnosis is

- a. Idiopathic parkinson's disease
- b. Wilson disease
- c. Alzheimer disease
- d. Progressive supranuclear palsy
- e. Lewy bodies dementia

2. Which test is diagnostic for multiple sclerosis?

- a. Contrast enhanced brain CT scan
- b. MRI brain and brainstem
- c. Visual and auditory evoked potentials
- d. CSF proteins cytological disproportion
- e. CSF oligoclonal bands

3. A 73 year old male presents with a 12 months history of falls. His relatives have also noticed rather strange behaviour of late and more recently he has had episodes of enuresis. On examination, disorientation to time and place, broad-based, clumsy gait. What is the most probable diagnosis?

- a. Cerebral atrophy
- b. Pituitary adenoma
- c. CVD
- d. Syringomyelia
- e. Narcotic drugs

4. Which of the following statements about multi-infarct dementia is incorrect?

- a. Depression is rarely a prominent feature
- b. It represents approximately 20% of all patients with dementia



- c. Prominent disturbances of gait, station and limb motor function are seen
- d. It appears most often in concert with diabetes mellitus and/or hypertension
- e. Step like progression with partial recovery between periodic losses of function is typical

5. Which of the following statements regarding Alzheimer's disease is false?

- a. Focal or generalized seizures occur in 10-15% of cases
- b. Memory disturbance for recent events is usually on early findings
- c. Senile plaques and neurofibrillary tangles are found in the cerebral cortex
- d. The disease is rapidly progressive, usually advancing to a fatal termination within a year
- e. Most examples occur sporadically but a family history of dementia and down's syndrome is seen in upto 25% of cases

6. A 36 years old woman was referred to you with a 3 week history of blurred vision and unsteady gait. She has experienced progressive fatigue for the past 6 months; one year ago, she abruptly lost vision in the right eye which returned to normal after 10 days. She has lost 5lbs in the past week and has developed insomnia. On examination, vital signs are normal and the patient is alert, awake and oriented with no evidence of dementia or aphasia but with an inappropriate euphoric effect. She has bilateral horizontal nystagmus with mild rapid alternating movement in the right upper extremity. Generalized hyper-reflexia is present. Vibration sense is slightly decreased in both feet. Which of the following is the most likely diagnosis?

- a. Multiple sclerosis
- b. Multiple cerebral infarcts
- c. Metastatic choriocarcinoma
- d. Amyotrophic lateral sclerosis
- e. Acquired immunodeficiency syndrome

## 10. MIX

1. A 50 year old lady with weak limbs when examined was found to have burn marks on finger tips wasted and weak hands with diminished reflexes. She also has weak spastic legs and dissociated sensory loss. What is the diagnosis?

- a. Multiple sclerosis
- b. Syringomyelia
- c. Motor neuron disease
- d. Guillian-barre
- e. Freidriech's ataxia

2. A 58 year old man complains of sudden attack of syncope. It occurs without warning and with no sweating, dizziness or light-headedness. He believes episodes tend to occur when he turns his head too quickly or when he is shaving. Physical examination is unremarkable. He has no carotid bruits and cardiac examination is normal. Which of the following is the best way to make a definitive diagnosis in this patient?

- a. ECG
- b. Carotid massage with ECG monitoring
- c. Holter monitor
- d. Electrophysiologic study to evaluate the AV node
- e. Carotid duplex ultrasonogram

3. Brown sequard syndrome is caused by

- a. Unilateral cord lesion
- b. Central cord lesion
- c. Thalamic lesion
- d. Transverse thoracic spinal cord lesion
- e. Cervical spine injury

4. Lesion of the optic nerve at optic chiasma causes

- a. Homonymous hemianopia
- b. Bitemporal hemianopia
- c. Homonymous upper quadrinopia
- d. Homonymous lower quadrinopia
- e. Total blindness



5. Cerebral venous thrombosis is caused by

- a. Oral hypoglycemic drugs
- b. Anti coagulants
- c. Oral contraceptives
- d. Anti hypertensive agents
- e. NSAIDs

6. The cause of characteristic decrease in response on EMG is

- a. Eaton lambart syndrome
- b. Myasthenia gravis
- c. Multiple sclerosis
- d. Motor neuron disease
- e. Epilepsy

7. Which of the following condition is associated with Carpel Tunnel Syndrome?

- a. Diabetes
- b. Hypothyroidism
- c. Rheumatoid arthritis
- d. Obesity
- e. All of them

8. Pituitary tumor causing compression of optic chiasma will cause

- a. Bitemporal hemianopia
- b. Homonymous hemianopia
- c. Homonymous upper quadrant anopia
- d. Homonymous lower quadrant anopia
- e. Binasal hemianopia

9. A 60 year old female complains of diplopia and generalized weakness that is worse in evening. The most likely diagnosis is

- a. Guillain barre syndrome
- b. Myopathy
- c. Hypothyroidism
- d. Myasthenia gravis
- e. Cushing's syndrome

10. An obese female presents with severe headache fundi. Fundal examination reveals bilateral papilledema. CT scan is normal. CSF opening pressure is 50 mm, the diagnosis is

- a. Brain tumor
- b. Migraine
- c. Benign intracranial hypertension
- d. Meningitis
- e. Subarachnoid hemorrhage

11. In patients with myasthenia gravis, CT thorax is done to exclude:

- a. Lymphoma
- b. Teratoma
- c. Thymoma
- d. Retrosternal goiter
- e. Midline Granuloma

12. A 38 year old male presented with recurrent bouts of excruciating periorbital headache on the right side for the last 3 years. Each episode lasts for 3-4 weeks and recurs every year. It is associated with vomiting, lacrimation and studded nostril. What is the most likely diagnosis?

- a. Chronic sinusitis
- b. Cluster headache
- c. Classic migraine
- d. Tension type headache
- e. Atypical facial pain

13. An elderly lady who is poorly looked after by the family, complains of backache for 1 year. For the last months, she has developed gradual weakness of both the lower limbs. She has used lots of painkillers without relief. O/E, there is tenderness at T6 level. What is this lady suffering from

- a. Osteoporotic vertebral collapse
- b. Spinal tumor
- c. Guillain barre syndrome
- d. Stroke
- e. Vitamin B12 deficiency

14. A 35 year old female presented with vertigo for the last 5 days. She gets spinning sensation while getting off the bed in morning lasting for few seconds. There was no tinnitus or hearing loss. Neurological examination showed normal cerebellar functions. Fundi were normal, Nystagmus present, Dix hallpike test was positive, Rhomberg test was negative. Cardiovascular system was normal. What is the most likely diagnosis?

- a. Vestibular neuronitis
- b. Meniere's disease
- c. Benign paroxysmal positioning vertigo
- d. Acoustic neuroma
- e. Multiple sclerosis



15. Your ENT colleague requested you to see a patient admitted to his ward for the right CSOM (Chronic Suppurative Otitis media) who develops fever, headache and impaired consciousness for 3 days. You found the patient to be pyrexia having right 6th cranial nerve palsy. Fundi reveal full right optic cup. Which investigation will you order to help final diagnosis

- a. CT brain
- b. CSF exam
- c. Pure tone audiometry
- d. MRI with MRV
- e. Blood culture

16. In the treatment of persistent tension type headache, not responding to simple analgesic and relaxation techniques, which of the following medications would be most suitable?

- a. Diazepam
- b. Amitriptyline
- c. Carbamazepine
- d. Olanzapine
- e. Ergotamine

17. A 28 year old woman had a severe headache for the past 2 weeks. Her family doctor examines her eyes. The left eye constricts directly to light with a consensual response in the right. However as he swings the torch from the left to right eye, he notes that both pupils appear to dilate. Which would be single most accurate explanation of this finding?

- a. Argyll Robertson's pupil on the right
- b. Myotonic right pupil
- c. Normal variation
- d. Raised intracranial pressure
- e. Relative afferent pupillary defect on the right

18. A 56 year old man has headache of gradually increasing severity for the last 5 months. His son has noticed a change in his personality and decline in memory for the same duration. What is most likely the cause of his ill health?

- a. Right sided CVA
- b. Brain stem infarct
- c. Left frontal lobe tumor
- d. Venous sinus thrombosis
- e. Viral encephalitis

19. The clinical features associated with raised intracranial pressure include all of the following except:

- a. Vomiting
- b. Morning headache
- c. Decreased consciousness
- d. Papilledema
- e. A falling blood pressure

20. A 63 year old woman is referred to you with progressive headache of two weeks duration. Her husband states that she is unable to sleep, cries frequently and is very depressed. Past medical history is unremarkable. Her local physician has prescribed diazepam and aspirin. Two weeks ago the hemoglobin was 13.1g/dl and white blood cell count was 6700/mm<sup>3</sup>. The patient is awake, alert and weepy and has mild pallor. Physical examination shows that the temporalis, trapezius, masseter and posterior cervical muscles are all tender to palpation. The neck is supple and Kernig's and Brodzinski's signs are absent. Fundoscopic examination is benign. The remainder of the examination is unremarkable. Which one of the following would most likely be of assistance in establishing a diagnosis?

- a. Lumbar puncture
- b. Dexamethasone suppression test
- c. Computed tomography scan of the brain
- d. Repeat complete blood count and sedimentation rate
- e. Thyroid function tests, rheumatoid factor and cervical spine roentgenogram

21. A 42 year old man is brought to the hospital by his wife because of diplopia. He awakened 30 min ago and while putting on his shoes noted that he could not see his left foot. On physical examination



the patient appears slightly lethargic and has a supple neck. Pulse rate is 82 per minute, blood pressure is 140/90mmHg. Ocular examination shows minimal right ptosis. The right pupil is 1mm larger than the left and both are reactive. The fundi are benign. There is a left homonymous hemianopsia. While you are examining the patient's reflexes, he becomes progressively drowsy and obtunded. There is a left hemiparesis. Rechecking his eyes you find the right eye deviated laterally. The left eye shows brisk doll's eye movements but the right eye shows no doll's eye movements, up, down or medially. The patient becomes rigid with diffuse muscular shivering. Which one of the following would be most appropriate to do next?

- Check the oculovestibular reflexes with ice water
- Order computed tomography scan of the brain immediately
- Perform a lumbar puncture
- Incubate, hyperventilate and administer mannitol intravenously
- Administer 40% nasal oxygen, then complete the neurological examination

22. Each of the following may produce hearing loss except:

- Furosemide
- Gentamicin
- Salicylates
- Erythromycin
- Cis-platinum

23. Subacute bacterial endocarditis often presents with each of the following except

- Papilledema
- Personality changes
- Cerebral infarction
- Intracerebral hemorrhage
- Transient ischemic attacks

24. A 30 year old man complains of unilateral headaches. The headaches did not respond to triptan therapy at that time, but after 6 weeks the headache resolved. He has had 3 or 4 spells of severe headaches since then. Currently his headaches have been present for the past 2 weeks. The headaches start with a stabbing pain just below the right eye. Usually the affected eye feels irritated with increased lacrimation. Each pain lasts from 60-90 minutes. The neurological examination including the cranial nerve examination is now normal. What is your best approach to treatment at this time?

- Prescribe oral sumatriptan for use at the onset of headache
- Prednisone daily for 2 to 4 weeks
- Obtain MRI scan of the head with gadolinium contrast
- Begin propranolol 20mg bid
- Refer for neuropsychiatric testing

25. A 38 year old woman is brought to the emergency room after suffering a seizure. There is a two days history of headache and lethargy but no previous seizures. On examination, she has a poor attention span and decreased memory. The plantar response on the left is extensor. CT scan of the brain is normal. Which of the following is the most likely diagnosis?

- Herpes simplex encephalitis
- Glioblastoma multiforme
- Intracerebral hemorrhage
- Embolic occlusion at the trifurcation of the right middle cerebral artery
- Todd's paralysis



**ANSWER KEYS****1. VASCULITIS**

1.C 2. D

**2. NEUROLOGICAL DISORDERS**

1.C	2.E	3.D	4.D
5.A	6.C	7.C	

**3. PARKINSON'S DISEASE**

1.B	2.D	3.B	4.E	5.E	6.E
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**4. STROKE SYNDROME**

1.C	2.C	3.E	4.B	5.C	6.C
7.B	8.B	9.D	10.C	11.B	12.C

13.

**5. MENINGITIS**

1.B 2.C 3.A 4.D

**6. MOTOR NEURON DX**

1.A 2.D

**7. EPILEPSY/SEIZURE**

1.B	2.C	3.E	4.D	5.B	6.A
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**8. NEURODEGENERATIVE DISORDER**

1.A	2.A	3.E	4.A	5.C
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**9. ALZ/DEMENTIA**

1.E	2.B	3.A	4.A	5.D	6.A
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**10. MIX**

1.B	2.B	3.A	4.B	5.C
6.B	7.E	8.A	9.D	10.C
11.C	12.B	13.A	14.C	15.A
16.B	17.E	18.C	19.E	20.D
21.D	22.D	23.A	24.B	25.A