

Anatomy and Embryology

- 1- Wrong about trigeminal nerve – innervates stapedius muscle
- 2- Wrong about anencephaly – associated with spina bifida in the lumbar region
- 3- Wrong about glossopharyngeal injury – dysphagia and nervous type dysphagia
- 4- Wrong about hypoglossal nerve – supplies tongue with SVE fibers
- 5- True about vagus injury - all
- 6- True about myelomeningocele – all (spina bifida is some vertebrae, absent part of dura and bulging of arachnoid, commonly associated with neurological symptoms)
- 7- A woman who had lost cold and hot differentiation from the right half of her face, and the left half of her body, with left nystagmus. The lesion is mostly in – right medulla
- 8- A man who had lost comprehension of written and spoken language, fluent but what he says makes little sense. Lesion is mostly in – Wernicke's area
- 9- Wrong about language centres in the brain – hemialexia can be due to lesion of the left angular gyrus
- 10- Broca's aphasia is usually associated with – spastic paralysis

Physiology

- 11- Unilateral lesion to V4 causes loss of color recognition in – contralateral visual hemifield
- 12- Not found in bilateral posterior parietal cortex lesion – visual ataxia
- 13- Not a function of frontal lobe – spatial navigation
- 14- A woman who has paralysis on the right side of her body with loss of position sense in the same side. When she tried to look left, she failed to abduct her left eye, other eye movements were normal. Lesion is mostly in – pons
- 15- A man with hemiplegia and diplopia, the most likely description of his condition is – Weber syndrome
- 16- A man started having dementia after a brain trauma. He started eating excessively and gained weight, he failed to recognize his friends and family by looking at them. And he started showing inappropriate sexual behavior in inappropriate places. The lesion is mostly in – bilaterally in amygdala
- 17- Which is true about limbic system – none
- 18- A lesion affecting an area of hypothalamus that contains a centre that involves heat regulation, mostly is in – paraventricular area (mostly)
- 19- Wrong about parvocellular layer of dorsal LGN of thalamus – it mainly projects to the superior colliculus
- 20- True about sleep – SSRIs commonly cause insomnia
- 21- A child with a brain tumor in the fourth ventricle affecting nodulus and fastigial nuclei of cerebellum and other areas of vermis, mostly is associated with – truncal ataxia
- 22- A lesion of left crus cerebri is mostly associated with – inability to tilt head to ipsilateral side
- 23- A girl suddenly started having involuntary rapid movement of her arms and face, most likely cause is – rheumatic fever or other infections

PBL

- 24- Wrong about headache – dura had no role in the pathophysiology of headache

Microbiology

- 25- Wrong about cysticercosis – eating undercooked meat (mostly)
- 26- Wrong about enteroviruses – secondary tissue damage is due to lytic cycle of virus
- 27- Not a method under development for prevention of prion disease – cannot remember the choice but it was none of these (all of these are true and are not the answer: vaccines that against abnormal protein, peptides that break the beta sheets, antibodies that recognize amino acid side chains of protein, and compounds that disrupt its replication cycle)

Biochemistry

- 28- Wrong about glutamate – cannot be synthesized inside neurons
- 29- True about stem cells – embryonal stem cells have more potency than adult (mostly)
- 30- If you find out that a iPSC is working to produce dopaminergic neurons that can be used in Parkinson's disease, you don't do this – start clinical trials to use the technique in patients with Parkinson's disease

Pathology

- 31- A woman had an ischemic stroke after tonsillectomy, wrong about this – brain is shrunken with wide gyri and narrow sulci
- 32- Wrong about multiple sclerosis – gray matter plaques
- 33- Wrong about neurofibrillary tangles – specific to Alzheimer's disease
- 34- Lewy bodies are found in – Parkinson's disease
- 35- Wrong about Huntington's disease – most cases are sporadic
- 36- Wrong combination – subdural hemorrhage – middle meningeal artery rupture
- 37- Best prognosis among these – pilocytic astrocytoma
- 38- True about primary CNS lymphomas – rarely spread outside CNS
- 39- A man had a brain hemorrhagic, necrotic and cystic mass, with high cellularity and palisading necrosis, wrong about his condition – improves in response to aggressive treatment to increase survival rate from few months to years

Pharmacology

- 40- Second gas effect is associated with – nitrous oxide
- 41- Atropine is used in balanced anesthesia to – inhibit GI secretions
- 42- What causes a decrease in activity of local anesthesia in inflammatory conditions – decreased pH which reduces its penetration through tissues
- 43- Wrong side effect – Bupropion – sexual dysfunction
- 44- Correct side effect – Aripiprazole – dizziness
- 45- A patient using a drug that lead to akathisia, which is most likely this drug – Risperidone (mostly)
- 46- Which drug is used effectively to reduce that side effect of the previous drug – Benzotropine
- 47- Drug associated with diabetes insipidus – Lithium
- 48- Drug of choice for trigeminal neuralgia – Carbamazepine
- 49- Drug with least sedation – Lamotrigine
- 50- Wrong about antiParkinsons agents – Selegiline is used alone in the early disease (mostly)

Lab

- 51- A patient with left ear sensorineural deafness, which is true – Positive Rinne test in left ear
- 52- Right eye RAPD, which is not a possible cause – right optic tract lesion
- 53- A test used to assess lower limb coordination – A and B mostly
- 54- A picture of medial medullary syndrome (lesion of pyramid, ML, XII) – which is true – all
- 55- A picture of midbrain at inferior colliculus – which structure explains in part that each cerebellar hemisphere controls ipsilateral side of the body – 1 (superior peduncle decussation)
- 56- A picture of midbrain at superior colliculus – what can't you see – lateral lemniscuses
- 57- A picture of right upper pons pointing at (1: Chief nucleus of V, 2: motor nucleus of V, 3: MLF) – the patient has deviation of the jaw to the right and inability to adduct their right eye in conjugate movement only. Lesion mostly in – 2 and 3
- 58- A picture of medulla oblongata – what structure is involved with dysphagia and nasal regurgitating when lesioned – 3 (nucleus ambiguus)
- 59- A picture of lower medulla – which are the nuclei that the vagus nerve arises from – 2,3,4,5