

Psychiatry Ophthalmology Ent

BTR Test

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1. A 25-year-old homeless man with a history of schizophrenia is brought to the hospital by local police. He destroyed a television set at a local electronics store and then became extremely agitated and violent when employees attempted to intervene. The patient's speech is difficult to follow, and he is distracted, seemingly listening to voices that only he can hear. He is admitted to the psychiatric ward and given haloperidol, which calms him down. Later that evening, however, he walks to the nurses' station and says, "What's happening to me?" The patient is upset and refuses to sit down, pointing to his neck. Physical examination shows a sustained contraction of his neck to the right side. Which of the following is the most appropriate next step in management?

- A. Haloperidol
- B. Diphenhydramine
- C. Levodopa
- D. Lorazepam

2. Organize the subsequent structures in the auditory pathway, beginning from the receptors and moving towards the cortex.

1. Auditory Cortex
2. Spiral ganglion
3. Cochlear Nucleus
4. Lateral lemniscus
5. Inferior colliculus
6. Olivary complex
7. Medial geniculate body

A. 3-2-4-6-7-5-1

B. 2-3-4-6-7-5-1

C. 2-3-6-4-5-7-1

D. 3-2-6-4-7-5-1

3. A 75-year-old man comes to the office due to a 2-year history of slowly worsening vision in both eyes. The symptoms are worse at night and the patient has stopped driving at night due to excessive glare from oncoming headlights. Medical history is unremarkable. Which of the following is the most likely etiologic factor for this patient's eye condition?

A. Accumulation of sorbitol in the lens

B. Age-related oxidative injury

C. Decreased collagen fibril production

D. Ischemia and neovascularization

4. 26-year-old man is brought to the emergency department after an attempted suicide by medication overdose. He has had 2 seizures in the past hour. Temperature is 38.8 C (102 F), blood pressure is 90/60 mm Hg, pulse is 110/min, and respirations are 22/min. The patient is not oriented to time, place, and person. Pupils are dilated and respond poorly to light. The skin is flushed and dry. Abdominal examination shows reduced bowel sounds. ECG shows prolonged QRS complexes (0.19 sec). Toxicology studies are pending. What is the drug of choice in this condition?

- A. Urinary acidification
- B. Hemodialysis
- C. Sodium bicarbonate
- D. Lorazepam

5. 1-year-old boy is brought to the clinic for mass in the neck. The parents noticed a small area of nontender swelling in the neck a month ago. Over the last few days, it has enlarged and become painful, and the patient has a fever. Examination shows a mobile, tender, fluctuant, and warm mass approximately 2 cm in diameter that is located at the right mandibular angle. There is purulent drainage from the skin surface just anterior to the right sternocleidomastoid muscle. This patient's clinical findings are most likely due to which of the following embryologic processes?

- A. Failed descent of a pharyngeal pouch structure
- B. Failed neural crest migration into a pharyngeal arch
- C. Inadequate fusion of the mandibular prominences
- D. Incomplete obliteration of a pharyngeal groove

6. 7-year-old boy is brought to the clinic due to poor vision at night. The patient developed mild difficulty seeing at night about 4 months ago, and it has slowly worsened. Visual field examination shows visual loss in the midperiphery. External eye examination reveals normal tear formation. Funduscopic examination shows bilateral optic disc pallor, attenuation of retinal vessels, and areas of dark discoloration in the retina. Which of the following is the most likely mechanism of this patient's visual impairment?

- A. Biallelic inactivation of RB1 gene
- B. Genetic progressive retinal dystrophy
- C. Increased intracranial pressure
- D. Poor aqueous outflow due to narrow angle

7. Identify the incorrect pair of questionnaires with the disorders:

A. SCOFF - Eating disorders

B. STOP-BANG- Opioid abuse

C. CAGE -Alcohol abuse

D. SPIKES-Breaking bad news

8. An 82-year-old woman with Alzheimer dementia is brought to the OPD for evaluation of new-onset drooling . The patient lives in a nursing home and the staff noticed that she has been having liquid drip out of the right side of her mouth when they feed her. She has also been very tearful over the past 2 weeks, particularly at night when she wakes up crying and clutching her ear. The patient has type 2 diabetes mellites that requires insulin and multiple medications . Her last hemoglobin A1c was 8.5%. Temperature is 38 C (100.4 F), blood pressure is 140/90 mm Hg, pulse is 96/min, and respirations are 18/min . Physical examination of the right ear canal shows granulation tissue with a surrounding white drainage in the floor of the canal. The tympanic membrane is clear and mobile to pneumatic otoscopy. There is facial asymmetry with some downward deviation of the right corner of the mouth . Which of the following is the most likely causative organism for this patient's condition?

A. *Aspergillus niger*

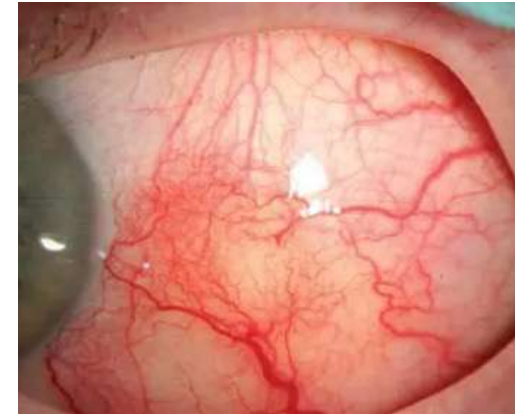
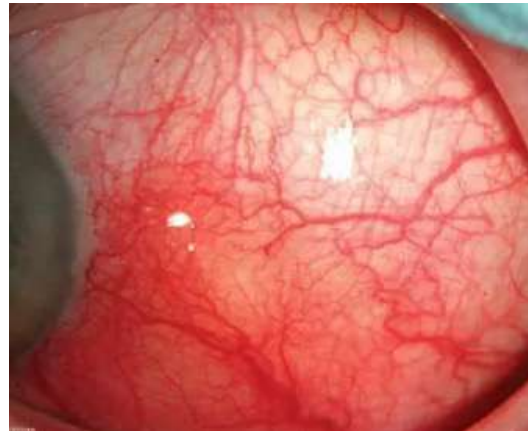
B. *Herpes zoster*

C. *Pseudomonas aeruginosa*

D. *Rhizopus species*

9. After the administration of phenylephrine, the depicted images reveal an observed alteration. What is the likely diagnosis?

- A. Nodular scleritis
- B. Nodular episcleritis
- C. Tenon's cyst
- D. Nodular phlycten



10. 32-year-old woman is brought to the OPD by her husband due to his concern about her increasing social withdrawal. The patient prefers to stay at home. When she must run errands, she insists that her husband accompany her. She stopped working 2 years ago due to severe episodes of anxiety that would occur unpredictably for no apparent reason. Since that time, the patient has continued to experience these episodes several times a week and has become more socially isolated due to fears of having another episode. She avoids seeing her friends except for the rare occasions when they come to her home. The patient feels badly that she is no longer working and contributing to the household finances. She has occasional difficulty falling asleep and problems with concentration. Although she is not looking for work, she keeps her home clean, cooks nightly, and enjoys watching television. Which of the following is the most likely cause of this patient's social withdrawal?

A. Avoidant personality disorder

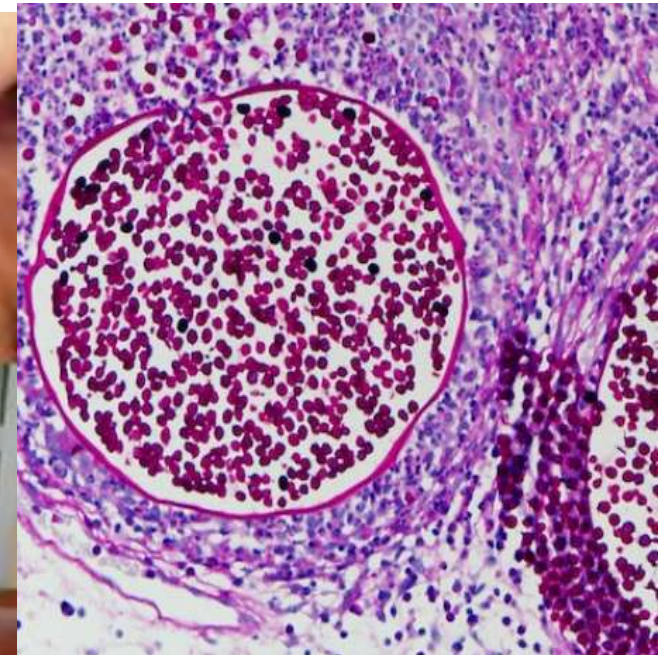
B. Panic disorder

C. Social anxiety disorder

D. Schizoid personality disorder

11. A male cattle breeder from South India presents with frank, intermittent epistaxis. The description of the nasal examination is provided below. A biopsy was conducted, and the histopathological examination findings are depicted as presented below. What is the probable diagnosis?

- A. Nasal polyp
- B. Rhinosporidiosis
- C. Hemangioma
- D. Rhinopyma

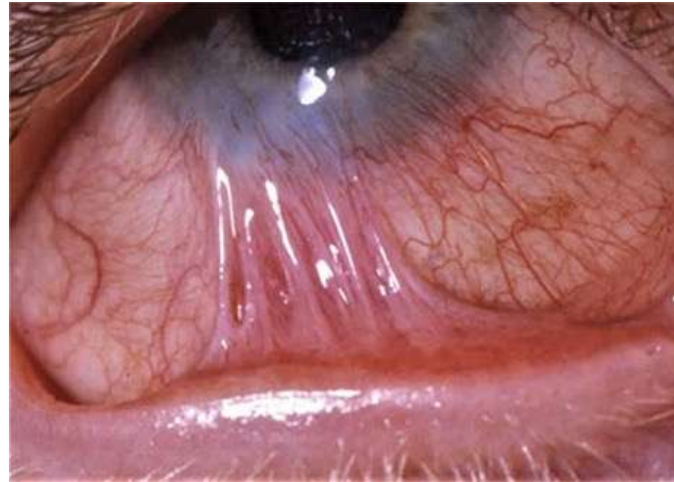


12. Identify the incorrect pair:

A. Ankyloblepharon



B. Symblepharon



C. Congenital ptosis



D. Buphthalmos



13. 35-year-old man with a history of bipolar and substance use disorders comes to the emergency department due to depression, auditory hallucinations, and suicidal ideation. His medications include lithium and escitalopram. The patient has a history of 5 psychiatric hospitalizations and 2 past suicide attempts, including overdose on his medications and attempted hanging. The patient has been using "anything I can get my hands on" because his depression is unbearable. He is hospitalized and placed on suicide precautions. His dose of escitalopram is increased to target his depression, and risperidone is added to treat the hallucinations. His lithium level is 1.0 mEq/L. On the second day of hospitalization, the patient reports muscle pains, abdominal cramping, nausea, and diarrhea. His temperature is 37.2 C (99 F), blood pressure is 130/85 mm Hg, and pulse is 84/min. The patient is alert and restless, and his pupils are dilated bilaterally. Bowel sounds are hyperactive and neurologic examination is normal. Which of the following is the most likely explanation for his symptoms?

- A. Serotonin syndrome
- B. Cocaine withdrawal
- C. Lithium toxicity
- D. Opioid withdrawal

14. A 34-year-old woman comes to the office due to double vision. The patient first experienced difficulty focusing her eyes while at work yesterday. On awakening this morning, her symptoms had progressed to frank diplopia. A complete physical examination is performed, including a full neurologic assessment. Shining light into the patient's right eye causes constriction of her right pupil, but not the left pupil. Shining light into her left eye causes constriction of only her right pupil. Which of the following additional physical examination findings is likely to be found in this patient?

- A. Absence of the left corneal reflex
- B. Drooping of the left eyelid
- C. Inability to close the left eye
- D. Inward deviation of the left eye

15. 25-year-old man comes to the office for evaluation of a painless mass in his mouth. The patient has had the mass for many years and has had no growth or other changes in the mass over that time. The patient smokes a pack of cigarettes a day and drinks 2 or 3 alcoholic beverages on the weekends. Examination of the mass is seen below. Which of the following is the most likely cause of this patient's mass?

- A. Bone tumor
- B. Toxin mediated
- C. Malignant transformation
- D. Viral infection



16. Identify the true statements:

1. Clozapine is the DOC for Treatment-resistant schizophrenia (TRS) defined as lack of response to at least two different antipsychotics, including at least one second-generation antipsychotic, given in adequate dosage and for an adequate duration (at least 4-6 weeks)
2. More affinity for D4 than D2
3. It is the only antipsychotic with antisuicide property
4. Life threatening idiosyncratic side effect that requires monitoring is agranulocytosis

A. 1,2,3,4

B. 1,3,4

C. 2,4

D. 2,3,4

17. A 68-year-old man with a long history of using chewing tobacco comes to the office for follow up of squamous cell carcinoma (SCC) of the oral cavity. A month ago, the patient was diagnosed with SCC of the left lateral tongue. He underwent resection, the surgical specimen showed clear margins, and he started additional treatment. The patient recently noticed a second ulcerative lesion on the right lateral tongue. Biopsy is performed and it also shows SCC. The second tumor most likely arose from which of the following mechanisms?

- A. Chemotherapy-induced malignancy
- B. Field cancerization
- C. Hematogenous spread
- D. Immunologic privilege

18. What is the mechanism of action when the retina is exposed to light?

- A. Hyperpolarization, increase in neurotransmitter release
- B. Hyperpolarization, decrease in neurotransmitter release
- C. Depolarization, decrease in neurotransmitter release
- D. Depolarization, increase in neurotransmitter release

19. A pregnant mother was on SSRIs. The risk of which of the following is increased in the newborn?

1. Low APGAR score
2. ADHD
3. Persistent pulmonary hypertension
4. Delayed developmental milestones

A. 1,3

B. 1,2,3,4

C. 2,3,4

D. 1,2,3

20. A 58-year-old man comes to the OPD due to muffled hearing and difficulty understanding speech over the past several weeks. Medical history includes hypertension, coronary artery disease, ischemic cardiomyopathy, and chronic kidney disease. He has had repeated hospitalizations for acute heart failure decompensation and was recently treated for acute prostatitis. Vital signs are within normal limits. Otoscopic examination shows no abnormalities. Audiometry reveals symmetric high-frequency sensorineural hearing loss. Which of the following medications is the most likely cause of this patient's current symptoms?

A. Aspirin

B. Ciprofloxacin

C. Furosemide

D. Sacubitril-valsartan

21. Which of the following is not a feature of keratoconus?

A. Haab's striae

B. Munson's sign

C. Irregular astigmatism

D. Scissoring reflex

22. 22-year-old man comes to the OPD due to irregular sleep for the past 3 months. The patient says, "Med school has become more stressful, and I have been feeling more fatigued since my girlfriend broke off our relationship last month." He is often sleepy during the day and sometimes falls asleep unintentionally during classes. The patient goes to bed at 1 AM and awakens at 9 AM. After classes, he avoids socializing and frequently returns straight to his dorm room to nap. The patient also describes "weird things happening as I fall asleep, like hearing whispering voices and seeing colorful animals." He describes another unusual experience last week when he suddenly felt weak in his face and knees following an upsetting phone call with his ex-girlfriend. Which of the following is best treatment for the patient?

- A. Modafinil
- B. Ropinirole
- C. Lorazepam
- D. Fluoxetine

23. A 33-year-old woman comes to the office due to intermittent dizziness. The patient describes a sensation of severe spinning accompanied by intense nausea that lasts 1-2 hours. She feels unsteady during these episodes and has to lie down with her eyes closed for relief. She also hears a "mechanical humming" sound in in her right ear during these episodes. The patient has no associated headaches, ear pain, or ear discharge. On examination, air conduction is greater than bone conduction in both ears. When the base of a tuning fork is placed against her forehead, the sound is heard more prominently in the left ear. Which of the following is the most likely cause of this patient's condition?

A. CSOM

B. Otosclerosis

C. Elevated endolymphatic pressure

D. SCC dehiscence

24. 45-year-old woman comes to the office due to progressive visual difficulty with night driving and reading road signs and fine print. The patient has systemic lupus erythematosus, which is treated with hydroxychloroquine and prednisone. She avoids sun exposure due to photo sensitivity and has vitamin D deficiency for which she takes a vitamin D supplement. Examination shows opacities on the posterior side of the lenses in both eyes. Optic discs are normal. Ocular movements are full. The remainder of the examination shows no abnormalities. Which of the following is the most significant contributing factor for the eye findings in this patient?

A. Hydroxychloroquine

B. Lack of sun exposure

C. Prednisone

D. Systemic lupus erythematosus

25. 42-year-old woman, gravida 1 para 1, comes to the office for evaluation of insomnia following the birth of her son 5 weeks ago. The patient says she wakes up each night to breastfeed him but is unable to go back to sleep. She stays up most of the night thinking, "Why did I have a child so late in life? I'm already failing as a mother." The patient has a decreased appetite and no interest in seeing friends or family members other than her mother. On mental status examination, the patient appears restless and is tearful. Which of the following is the most likely diagnosis?

- A. Adjustment disorder
- B. Postpartum blues
- C. Generalized anxiety disorder
- D. Major depressive episode

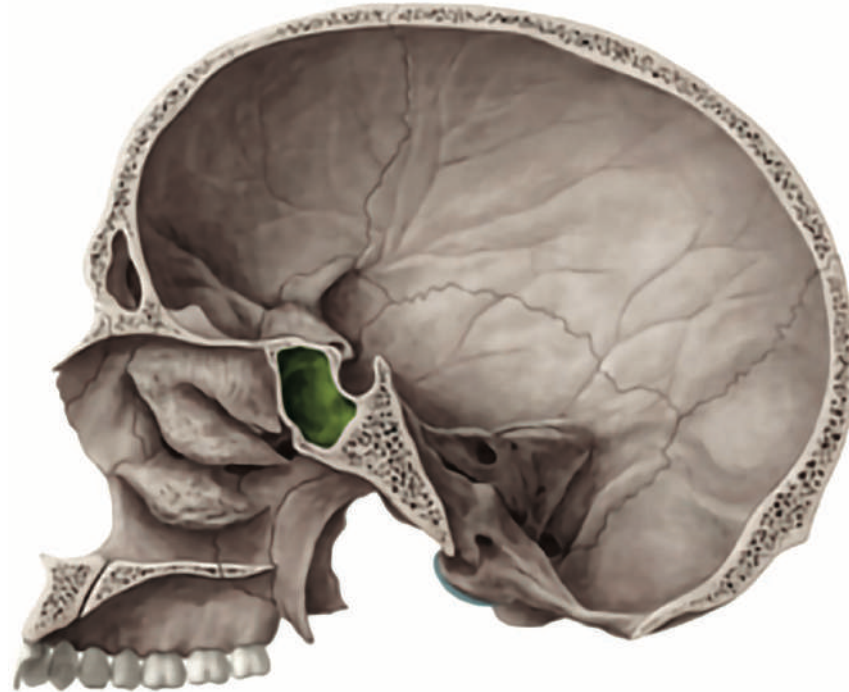
26. What is the site of drainage of the marked structure?

A. Superior meatus

B. Middle meatus

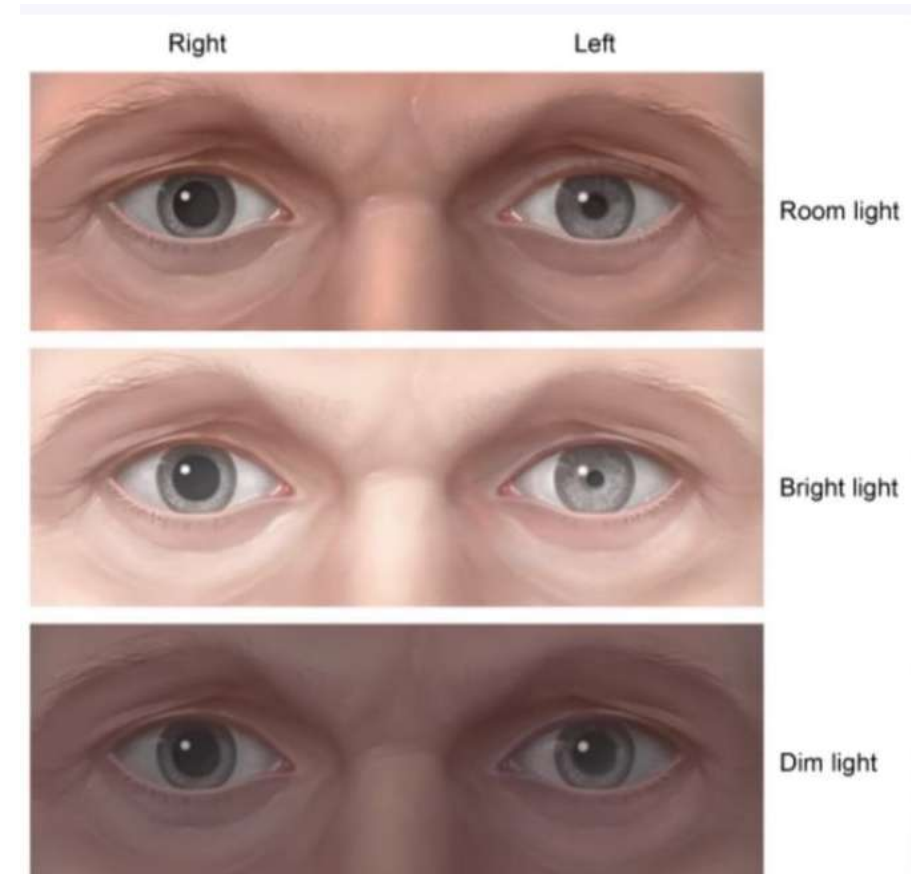
C. Inferior meatus

D. Sphenoethmoidal recess



27. 32-year-old woman comes to the office for routine check up. Physical examination is unremarkable except for anisocoria. Pupillary examination findings in normal, bright, and dim light are shown in the image below. This patient's pupillary abnormality is likely due to a defect in which of the following pathways?

- A. Optic nerve of the right eye
- B. Parasympathetic innervation of the left eye
- C. Parasympathetic innervation of the right eye
- D. Sympathetic innervation of the right eye



Bright light: Parasympathetic defects increase

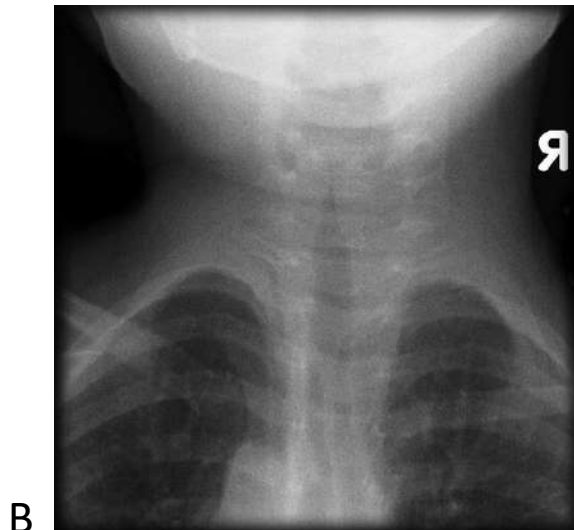
Dim light: Sympathetic defects increase

28. 28-year-old woman is brought to the emergency department by her boyfriend due to bizarre behaviour over the past week. The patient abruptly quit her job saying, "My boss was trying to sabotage me because she's jealous of my intellect. The job was beneath me anyway. The time has come for me to run for politics myself." She feels annoyed and exclaims that she needs to leave immediately so that she can organize her campaign. The patient yells at her boyfriend for bringing her to the hospital, a minute later, she hugs him and tearfully says, "I can't imagine my life without you." She rarely drinks alcohol and does not use illicit substances. Physical examination shows no abnormalities. On mental status examination, the patient is easily agitated when interrupted and jumps from one topic to another. Which of the following is the most likely diagnosis in this patient?

- A. Bipolar disorder
- B. Borderline personality disorder
- C. Brief psychotic disorder
- D. Delusional disorder

- Distractibility
- Impulsivity/indiscretion
- Grandiosity
- Flight of ideas/racing thoughts
- Increased activity/psychomotor agitation
- Decreased need for sleep
- Talkativeness/pressured speech

29. 5-year-old boy is brought to the emergency department by his parents due to sudden-onset difficulty breathing. The patient developed a mild cough and sore throat yesterday, his parents gave him acetaminophen, which improved his throat pain. However, this morning the patient had difficulty breathing and was sitting in bed and leaning forward refusing to lie down. Oxygen saturation is 92% on room air. The patient appears anxious, is drooling, and has inspiratory stridor. The uvula is midline, and there is no oropharyngeal or tonsillar erythema. Lung examination shows transmitted upper airway noises without wheezing or crackles. Which of the following is the most likely X-ray appearance for the child?



30. Which of the following is not a feature of complicated cataracts?

- A. Krukenberg spindle
- B. Polychromatic lustre
- C. Occurs after uveitis
- D. Breadcrumb appearance

31. A 76-year-old man comes to the office for follow-up of hypertension. He says, "I wouldn't be surprised if my blood pressure is up with all the stress I am under. My wife has been having an ongoing affair with our accountant I've known about this for years, and she continues to deny it. Even my children are in on it. They tell me that I'm imagining things." The patient reports that he monitors his wife closely and calls her multiple times a day to check on her whereabouts but admits that he has not found any evidence of the affair. He reports intermittent insomnia but no change in appetite. The patient occasionally forgets names and has word-finding difficulty. He continues to perform household chores and handle finances. The patient is alert and oriented, and his mood is irritable. Which of the following is the most likely diagnosis for this patient?

- A. Alzheimer disease
- B. Delusional disorder
- C. Major depressive disorder with psychotic features
- D. Paranoid personality disorder

32. 58-year-old man comes to the emergency department due to vision disturbances. Over the past several weeks, the patient has had intermittent episodes in which he sees everything tinted with blue. His vision returned to normal within a few hours each time. When he woke up today, vision in the left eye was blurry. He has had no eye pain, conjunctival redness, or headache. Medical history is notable for hypertension, type 2 diabetes mellitus, hyperlipidemia, and erectile dysfunction. Physical examination shows an afferent pupillary defect, decreased visual acuity, and optic disc edema in the left eye. Discontinuing which of the following medications may improve this patient's vision?

A. Amitriptyline

B. Metformin

C. Ramipril

D. Sildenafil

33. 28-year-old woman comes to the OPD due to persistent nasal congestion and stuffiness. The patient has a constant sensation of dripping in the back of her throat and states that food has tasted bland to her recently. A year ago, she came to the emergency department due to severe wheezing after taking naproxen for menstrual cramping. Family history is significant for asthma in her sister. Which of the following is the most likely cause of this patient's current symptoms?

A. Allergic rhinitis

B. Fungal rhinosinusitis

C. Nasal polyposis

D. Nasopharyngeal angiofibroma

34. Which of the following is true statement about Korsakoff syndrome?

- A. Triad of confusion, ophthalmoplegia, and ataxia
- B. Loss of long-term memory but intact personality
- C. Anterograde amnesia with loss of recent memory
- D. Loss of implicit memory and immediate recall

35. 62-year-old man comes to the physician for a routine follow-up appointment. He has a 20-pack-year smoking history and recently began chewing tobacco. The patient's past medical history is significant for type 2 diabetes mellitus and hypertension. His last haemoglobin A1c was 8.3%. On oral examination, a white patch is seen on the buccal mucosa. The lesion appears to have a granular texture, is not indurated, and is not removed by scraping with a tongue depressor. There is no regional lymphadenopathy. Which of the following is the most likely cause of the oral lesion in this patient?

- A. Aphthous stomatitis
- B. Candidiasis
- C. Squamous cell carcinoma
- D. Leukoplakia



36. What is the action of the superior oblique muscle?

A. Intorsion, abduction, depression

B. Intorsion, adduction, elevation

C. Extorsion, abduction, depression

D. Extorsion, adduction, elevation

37. A 53-year-old man comes to the office due to persistent fatigue. The patient started a therapeutic dose of fluoxetine 2 months ago after being diagnosed with major depressive disorder. He says, "Since I last saw you, I still feel like I'm dragging pretty much every day and have to force myself to go to work in the mornings. I haven't even wanted to have sex with my wife. That's been going on for almost a month, and it's really bothering me." Medical history includes hypertension treated with enalapril. He had a 4-kg weight gain over the past 2 months. Blood pressure is 130/84 mm Hg and pulse is 76/min. Which of the following is the most appropriate next step in pharmacotherapy?

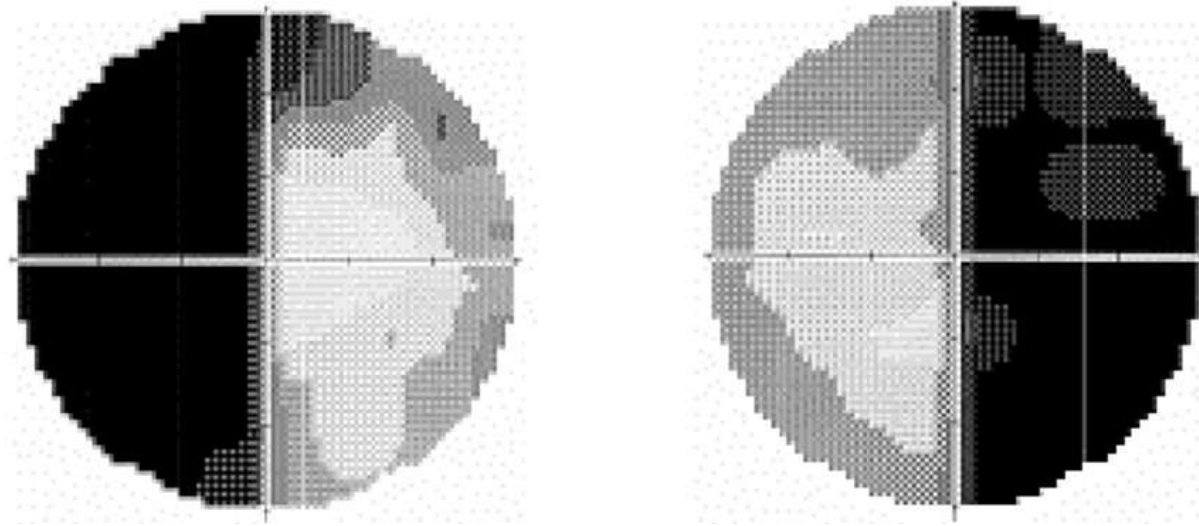
- A. Continue fluoxetine and add aripiprazole
- B. Continue fluoxetine and add methylphenidate
- C. Discontinue fluoxetine and begin bupropion
- D. Discontinue fluoxetine and begin venlafaxine

38. A 4-month-old boy is brought to the office for "noisy breathing", especially when he is lying on his back. The noise seems to improve when the patient is held upright or during "tummy time." He does not appear to have labored breathing and has never turned blue. Which of the following would confirm the most likely diagnosis for this patient?

- A. Chest radiography
- B. CT scan of the neck
- C. Flexible fiberoptic laryngoscopy
- D. Fluoroscopic barium swallow

39. A patient is not able to see the lateral fields. He was having a mild headache for a few weeks and now presented to the clinic. Visual field examination shows the following finding. What is the probable site of the lesion based on the image displayed?

- A. Optic chiasma
- B. Occipital lobe
- C. Optic tract
- D. Optic radiation

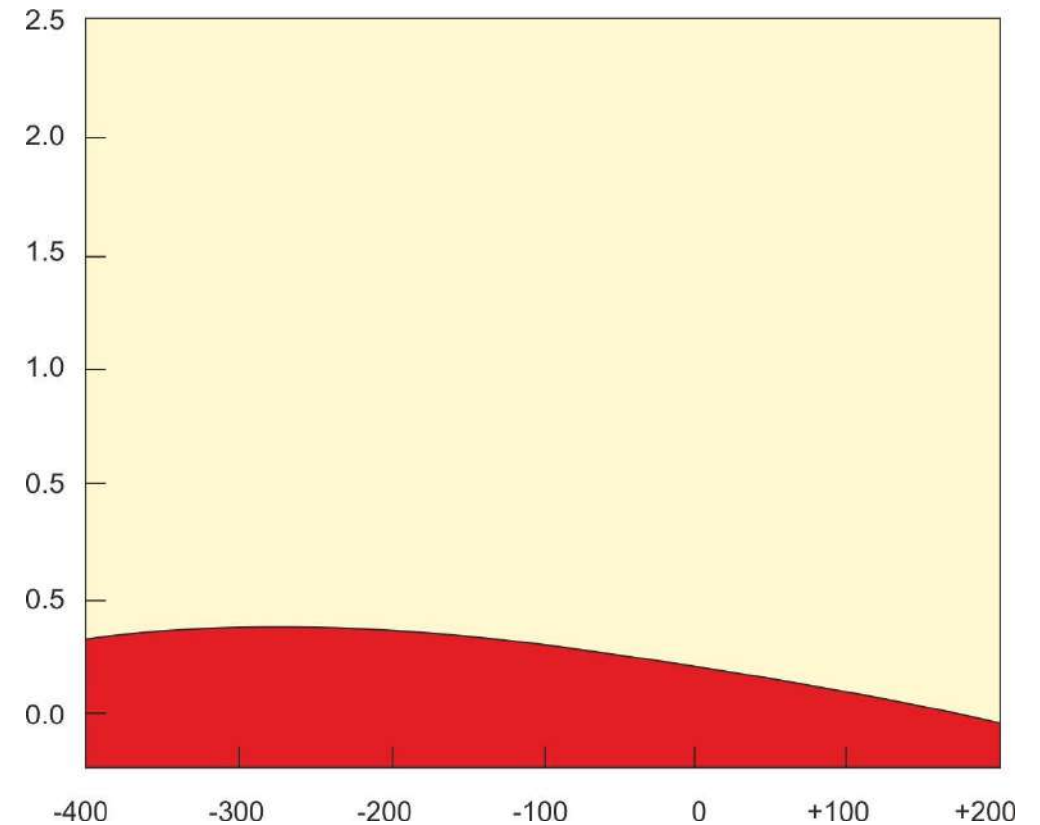


40. A 20-year-old woman is brought to the emergency department by police at 2:30 AM after she was caught attempting to scale a fence at the Rashtrapati Bhawan. The patient appears highly agitated and paces around the examination room. She has just flown in from out of state to "meet with the president about a foolproof plan for eliminating worldwide terrorism." The patient has barely slept for the past week due to her intensive work on this plan. The evaluation has to be stopped when the patient begins banging on the door and demanding to leave. Temperature is 37 C (98.6 F), blood pressure is 148/84 mm Hg, pulse is 98/min, and respirations are 22/min. Urine drug screen is negative. Administration of which of the following medications is the most appropriate next step in management of this patient?

- A. Lithium
- B. Clozapine
- C. Haloperidol
- D. Olanzapine

41. A 6-year-old boy presented with recurrent URTI, poor growth, high-arched palate, and impaired hearing. Tympanogram is given as follows. What would be the most appropriate management?

- A. Grommet insertion
- B. Adenoidectomy with grommet insertion
- C. Myringotomy with grommet insertion
- D. Myringotomy



42. 28-year-old man comes to the emergency department after sustaining an accidental penetrating injury to the left eye. Examination shows left globe perforation with decreased visual acuity. The right eye is normal. Surgical treatment is performed with subsequent improvement in vision. Two months later, the patient experiences pain, photophobia, and diminished vision in the right eye. Evaluation shows leukocytes in the anterior chamber and vitreous humor and choroidal deposits consistent with granulomatous panuveitis. Disruption of which of the following immune processes is most likely responsible for this patient's current condition?

- A. Complement regulation
- B. Immune privilege
- C. Immune surveillance
- D. Positive selection

43. 33-year-old woman comes to the office for management of chronic headaches . Her headaches are unchanged, although she now has shoulder and neck pain as well. The patient has been under a lot of stress lately and describes difficulty falling asleep, poor concentration, fatigue, and feeling overwhelmed. Although she has always been a "worrier," she reports worsening anxiety and irritability since she started a new job 8 months ago. The patient also finds herself making mental lists of all the things she must do the next day rather than concentrating on her work. By the time she gets home, she feels exhausted and often snaps at her children and husband. Which of the following is the most likely diagnosis?

A. Acute stress disorder

B. Panic disorder

C. Generalized anxiety disorder

D. Obsessive-compulsive disorder

44. A 25-year-old woman comes to the office due to weight gain. The patient has gained 4.5 kg since breaking up with her boyfriend and starting a stressful job 4 months ago. She says, "I hate the way I look. I try to limit my portions, but several times a week I end up eating a whole bag of cookies or a box of ice cream in one sitting, even if I'm not hungry. My stomach is so bloated that I can't fit into my clothes. It is so depressing." Her weight is always fluctuating although she has tried numerous diets over the years. She also does 45 minutes of aerobic exercise 3 times a week. The patient prefers to eat alone because she feels embarrassed and "out of control." She feels guilty about her behaviour, and her self-esteem is low. The patient is 160 cm (5 ft 3 in) tall and weighs 60 kg. BMI is 23.4 kg/m². Which of the following is the most likely diagnosis?

A. Anorexia nervosa

B. Binge eating disorder

C. Body dysmorphic disorder

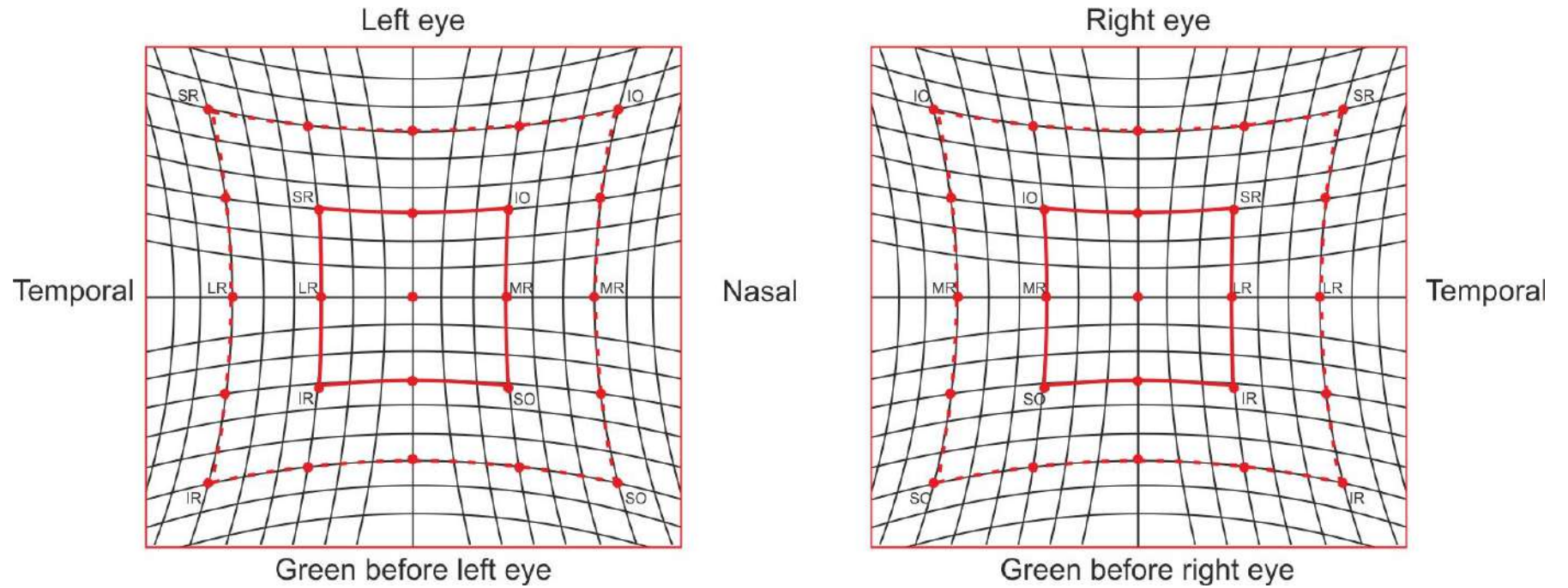
D. Bulimia nervosa

45. 3-year-old girl is evaluated for hoarseness that has been getting worse over the past 2 months. The patient has had no fever, shortness of breath, or change in activity level. She is eating normally, gaining weight well, and does not seem to be in pain. On physical examination, the ears are normal appearing with no middle ear fluid. The nasal mucosa is clear with no rhinorrhoea, and the turbinates are normal in size. There are no oral mucosal lesions. The tonsils are small and nonobstructive. There is no cervical lymphadenopathy. Aside from hoarseness, examination of cranial nerves is normal. Flexible laryngoscopy shows the following. Which of the following is the most likely cause of this patient's current condition?

- A. Anomalous airway development
- B. IgE-mediated hypersensitivity reaction
- C. Inherited deficiency of C1 inhibitor
- D. Maternally transmitted viral infection



46. Identify the chart given in the picture below.



A. Hess chart

B. Snellen chart

C. Amsler grid

D. ETDRS chart - Early treatment diabetic retinopathy study

47. 23-year-old woman comes to the OPD for a follow-up. The patient had no known psychiatric history prior to being arrested by police 2 months ago after breaking into city hall to "find evidence of a secret organization plotting to take over the world." When police officers took her into custody, she was speaking so rapidly that they had difficulty understanding her. She was subsequently hospitalized and prescribed appropriate treatment, symptoms improved, and she was discharged 2 weeks later. Since then, the patient has been taking medications as prescribed. She is "doing much better" and has no symptoms. Vital signs are within normal limits and physical examination is unremarkable. The patient's speech is regular in rhythm and rate and she appears calm. She is fully oriented and does not appear distracted. Laboratory studies are unremarkable except for serum calcium of 13.4 mg/dL. This patient is most likely taking which of the following medications?

A. Aripiprazole

B. Carbamazepine

C. Lamotrigine

D. Lithium

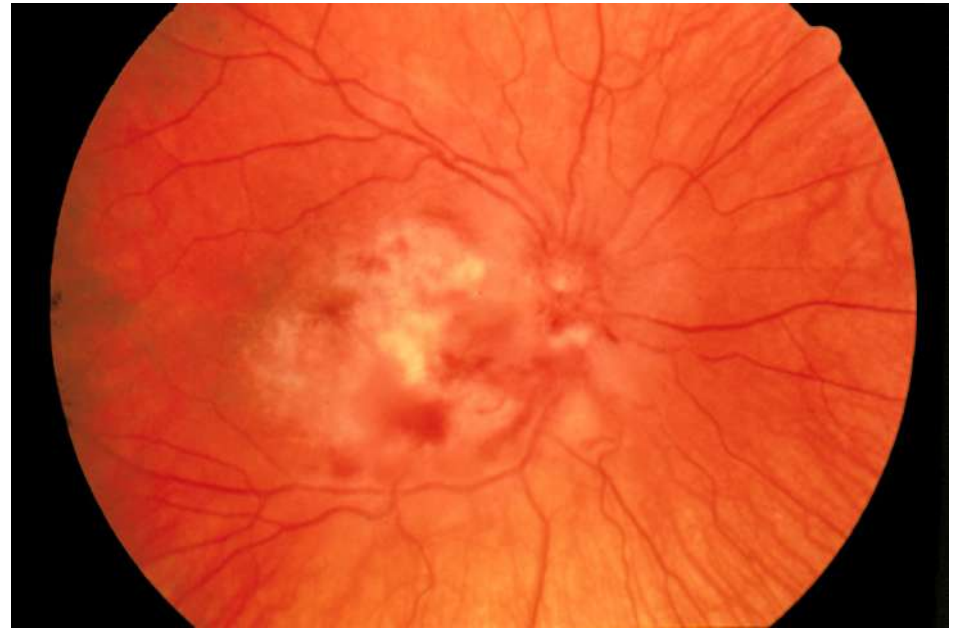
48. A 12-month-old girl is brought to the OPD due to 3 days of fever, rhinorrhea, and nasal congestion. She has no allergies. Both parents smoke cigarettes and both older siblings received tympanostomy tubes as infants. The temperature is 39.4 C (102.9 F). The patient is irritable but easily consoled by her mother. External ear examination is unremarkable, and external ear canals are patent. Otoscopy findings are shown. Which of the following is the most appropriate next step in management of this patient?

- A. Oral antibiotics
- B. Supportive care and observation
- C. Temporal CT scan
- D. Tympanocentesis and culture



49. 43-year-old man comes to the emergency department due to painless, progressive visual impairment. The patient was diagnosed with sexually acquired HIV infection 4 years ago. He was previously started on antiretroviral therapy but has been noncompliant with his prescribed medications. Funduscopy reveals the findings seen in the image below. Which of the following medications is the best initial therapy for this patient?

- A. Acyclovir
- B. Amphotericin B
- C. Clarithromycin
- D. Ganciclovir



50. 37-year-old man is brought to the emergency department by ambulance after his sister found him unresponsive. Several days ago, he was discharged from an inpatient dual diagnosis facility, where he was treated for multiple substance use disorders and long-standing bipolar disorder. The patient's sister states that he has been depressed and has not taken any of his prescribed medications since discharge. Temperature is 36.7 C (98.1 F), blood pressure is 80/40 mm Hg, pulse is 62/min, and respirations are 10/min. The patient is obtunded and unresponsive to verbal commands. Physical examination shows 2-mm pupils. Fingertick blood glucose is 72 mg/dL. The patient is ventilated by bag valve mask, and supplemental oxygen and intravenous fluids are initiated. Which of the following should be administered next?

- A. Flumazenil
- B. Intravenous thiamine
- C. Haloperidol
- D. Naloxone

51. A patient presents with vertigo associated with horizontal nystagmus. The slow component is towards the left. What is the most likely diagnosis?

A. Posterior canal BPPV

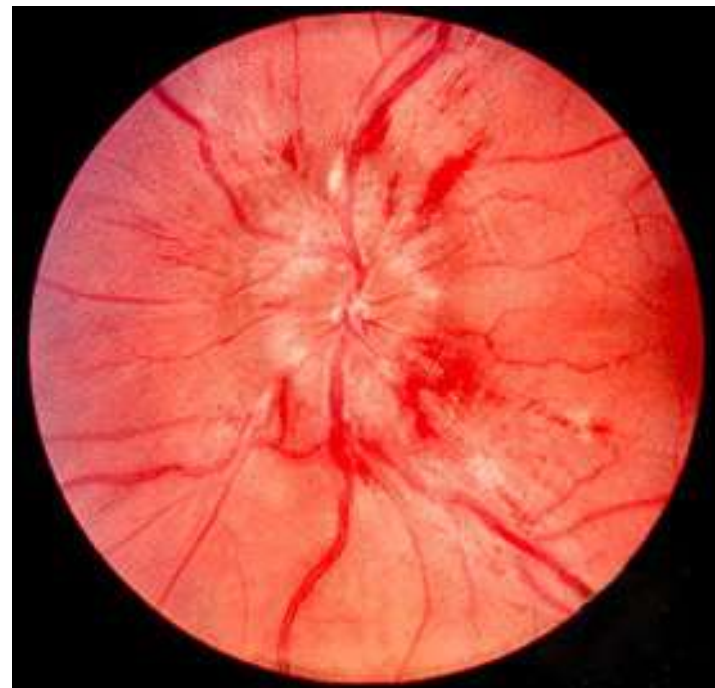
B. Superior canal BPPV

C. Right hypoactive labyrinth

D. Left hypoactive labyrinth

52. 31-year-old woman comes to the office due to transient visual changes that are characterized by "loss of vision for a minute" and commonly precipitated by bending forward or lifting objects. During the last 3 months, she has had persistent headaches that she attributes to migraines. The patient takes over-the-counter analgesics as needed. Blood pressure is 140/90 mm Hg and pulse is 72/min and regular. BMI is 32.4 kg/m². Funduscopic findings of the left eye are shown in the image below, with similar findings in the right eye. Which of the following is the most likely cause of the observed funduscopic findings in this patient?

- A. Choroidal inflammation
- B. Elevated intracranial pressure
- C. Elevated intraocular pressure
- D. Optic nerve inflammation



53. A person often feels that his hands are contaminated and he is forced to wash his hands. Recently, he feels this repetitive, distressing thought of repetitive hand washing has begun affecting his performance. Which of the following is the best treatment option for this patient?

A. DBT

B. Exposure and response prevention

C. Systematic desensitization

D. CBT

54. 5-year-old boy is brought to the clinic by his parents due to hearing loss. Over the past year, the patient has had increased difficulty hearing normal conversations. He was born at 36 weeks gestation and was small for gestational age but otherwise has had no medical problems. A tuning fork held over the middle of the forehead sounds louder in the left ear. Tuning fork sounds are better heard with air conduction bilaterally. Which of the following is the most likely etiology of this patient's hearing loss?

- A. Cholesteatoma
- B. Chronic otitis media
- C. Congenital infection
- D. Otosclerosis

55. A 30-year-old female presents with redness and pain in the eye. Examination revealed an IOP of 38 mm of Hg, aqueous flare, and corneal precipitates. Which of the following drugs must be avoided in her?

A. Beta blockers

B. Mannitol

C. Carbonic anhydrase inhibitors

D. Prostaglandin analogs

56. 52-year-old man comes to the office due to low energy and poor sleep. The patient reports feeling stressed since his divorce last year. He has difficulty sleeping through the night and awakens around 4:00 AM most mornings, earlier than he would like. At work, the patient has trouble concentrating and is becoming less productive. Although he loves his children, he no longer enjoys visiting them on the weekends and makes excuses to stay home. The patient says that food is tasteless, and his appetite has decreased significantly over the last 2 months. He has no psychotic features or suicidal ideation. This patient is most likely to have which of the following abnormalities?

- A. Enlarged lateral cerebral ventricles
- B. Increased REM sleep latency
- C. Increased sensitivity to lactate infusion
- D. Increased serum cortisol concentration

57. SAFE strategy for trachoma includes all except?

A. Surgery for trichiasis

B. Antibiotics

C. Facial cleanliness

D. Evaluation of control program

58. 14-year-old boy comes to the office due to right ear pain, pruritus, and discharge over the past week. He has had no cold symptoms, hearing loss, dizziness, or tinnitus. The patient returned yesterday from a 2-week vacation at Goa, where he swam daily. Temperature is 37.1 C (98.8 F), blood pressure is 110/70 mm Hg, and pulse is 75/min. Manipulation of the right ear during otoscopy elicits pain. There is prominent swelling and erythema of the ear canal with purulent and crusty debris. The tympanic membrane appears normal and has normal mobility. Which of the following is the most likely causative organism of this patient's current condition?

- A. *Haemophilus influenzae* type b
- B. *Mucor*
- C. Nontypeable *Haemophilus influenzae*
- D. *Pseudomonas aeruginosa*

59. A 42-year-old man is admitted to the hospital after sustaining fractures of his right femur and tibia in a motor vehicle collision. The patient becomes agitated, hypervigilant, and paranoid 12 hours after admission. He repeatedly tells the nurses that he can hear people in the corridor making insulting remarks about him. When hospital staff check the area near the patient's room, no one is found. Medical history is unremarkable, but psychiatric history is significant for cocaine, marijuana, and alcohol misuse. On examination, the patient is alert and oriented. Temperature is 37.2 C (99 F), blood pressure is 135/87 mm Hg pulse is 85/min, and respirations are 18/min. He is slightly tremulous and diaphoretic. Which of the following is the most likely diagnosis in this patient?

- A. Alcoholic hallucinosis
- B. Brief psychotic disorder
- C. Cocaine withdrawal
- D. Delirium tremens

60. What test is not used for testing olfaction?

A. Smell diskettes

B. Arnold stick test

C. UPSIT

D. CC-SIT

Tests used for olfaction are as follows:

1. **Smell diskettes** are used as a screening test for olfaction. Reusable diskettes are used with the application of 8 different odorants.
2. **University of Pennsylvania Smell Identification Test (UPSIT)** is a commercially available, self-administered test. It uses microencapsulated odorants, which are released on scratching standardized odor-impregnated test booklets.
3. The 12-item version of UPSIT, also known as the **Cross-Cultural Smell Identification Test (CC-SIT)**, is useful for quantifying smell loss when less time is available. This test serves as a means to reliably assess olfactory function in less than 5 minutes.
4. **The Sniffin' Sticks** test is a new test of nasal chemosensory performance based on pen-like odor-dispensing devices. Semi-objective assessment of the patient's olfactory performance by means of 3 subtests: threshold test, identification test and discrimination test.

61. 62-year-old man with a history of poor medical follow-up comes to the office due to difficulty seeing. He has had blurry vision for the last 2 weeks. A day ago, he noticed a shadow develop suddenly across the visual field of his right eye. Visual field testing by confrontation reveals patchy loss of vision. Funduscopic examination is shown in the image below. Which of the following is the most likely cause of his visual disturbance?

- A. Central retinal artery occlusion
- B. Closed-angle glaucoma
- C. Giant cell arteritis
- D. Hypertension



62. Which of the following is not a type of subcortical dementia?

A. Pick's disease

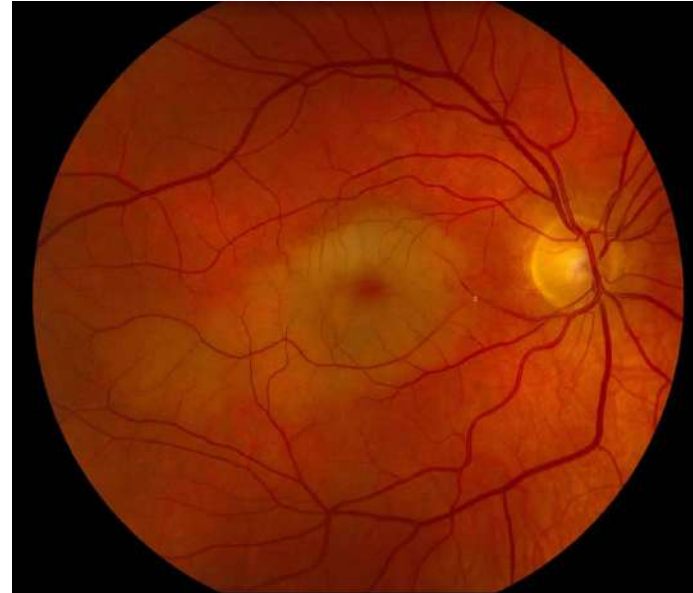
B. Parkinson's disease

C. Huntington's disease

D. Wilson's disease

63. 64-year-old man comes to the emergency department due to painless loss of vision in the right eye. The patient's symptoms started suddenly several hours ago and have persisted. He has a history of coronary artery disease, atrial fibrillation, and type 2 diabetes mellitus. Visual acuity in the right eye is hand motion only and normal in the left eye. Funduscopic examination of the right eye is shown in the image below. Which of the following is the most likely cause of this patient's loss of vision?

- A. Amaurosis fugax
- B. Diabetic retinopathy
- C. Retinal artery occlusion
- D. Temporal lobe stroke



64. A 5-year-old boy is brought to the clinic due to persistent ear discharge. The patient began to have purulent right ear drainage a month ago. Topical antibiotic drops and oral antibiotics have not improved his symptoms. He has had no fever, ear pain, dizziness, or tinnitus. The patient was born with a cleft palate that was repaired in infancy. Due to bilateral persistent middle ear effusions, tympanostomy tubes were also placed. Three years ago, the tympanostomy tubes were removed, after which audiometry was normal. There is scant, yellow, malodorous discharge in the right ear canal. The right tympanic membrane (TM) is immobile with insufflation and appears intact. There is retraction of the superior portion of the TM and a pearly white mass is seen. Which of the following is most likely responsible for this patient's presentation?

- A. Acute middle ear effusion with concurrent tympanic membrane inflammation
- B. Chronic foreign body impaction with external ear canal abrasion
- C. External ear canal epithelial maceration and inflammation
- D. Tympanic membrane epithelium and keratin debris accumulation

65. 31-year-old woman is brought to the emergency department by her boyfriend due to confusion. The boyfriend says that the patient "seemed okay" when he left for work this morning, but when he returned in the evening, she was disoriented and "acting like a drunk person"; she had also vomited "all over the bathroom." She has a history of bipolar disorder. Medications include clonazepam, lithium, and quetiapine. Temperature is 37 C (98.6 F), blood pressure is 110/68 mm Hg, pulse is 92/min, and respirations are 16/min. On physical examination, the patient is somnolent and has frequent fasciculations. Pupils are equal and reactive. During evaluation, she has a brief episode of a generalized tonic-clonic seizure. Laboratory results are as follows

Hemoglobin: 13 g/dL

Leukocytes: 9,000/mm³

Sodium: 136 mEq/L

Potassium: 3.8 mEq/L

Bicarbonate: 28 mEq/L

Creatinine: 1.2 mg/dL

Glucose: 120 mg/dL

Serum lithium 2.8 mEq/L

In addition to supportive measures, which of the following is the best next step in management of this patient?

- A. Activated charcoal
- B. Calcium gluconate
- C. Gastric lavage
- D. Hemodialysis

66. Which among the following is not used in post laryngectomy rehabilitation?

A. Tracheo- esophageal prosthesis

B. Esophageal speech

C. Polite yawning

D. Super supraglottic swallow

Super supraglottic swallow is not used in post laryngectomy rehabilitation but in dysphagia to prevent aspiration of food. To perform this technique, patients are directed to take a deep breath and tightly hold it while bearing down. They should maintain this breath hold and bear down as they swallow. Immediately after the swallow (before inhaling), they are instructed to cough, followed by a forceful swallow once more (before inhaling). This sequence is aimed at enhancing airway protection during swallowing.

A tracheoesophageal prosthesis (TEP) is a one-way valve inserted through a tracheoesophageal puncture. Occlusion of the stoma shunts the exhaled air through the TEP into the esophagus producing vibration of the upper esophageal sphincter resulting in phonation.



Esophageal speech is phonation produced by vibration of the upper esophageal sphincter.

Polite yawning also called nasal airflow-inducing maneuver is indicated for olfaction rehabilitation post laryngectomy. This maneuver induces a negative pressure in the oral cavity and oropharynx, which generates a nasal airflow, enabling odorous substances to reach the olfactory epithelium again.

67. Identify the incorrect pair:

A. Marcus Gunn pupil: POAG

B. Adie tonic pupil : postganglionic parasympathetic pupillomotor damage

C. Argyll Robertson pupils: LR present, accommodation reflex absent

D. Hutchinson's pupil: compression of oculomotor nerve

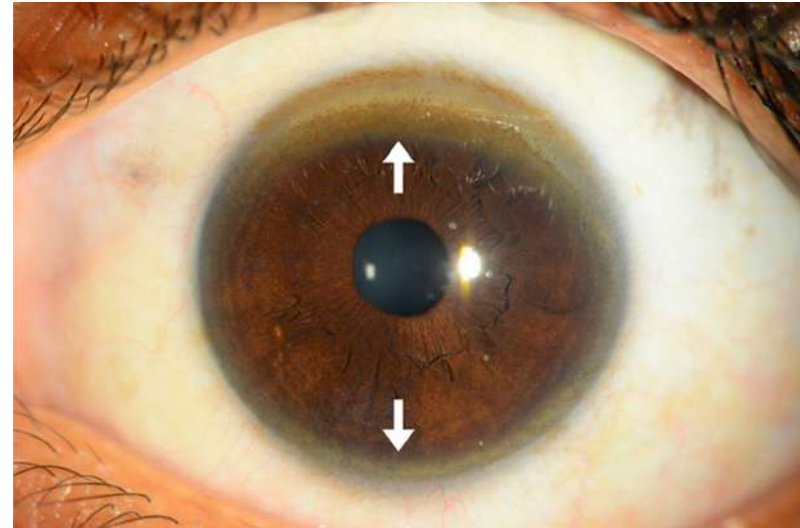
68. Which of the following is not a good prognostic factor in schizophrenia?

- A. Positive symptoms
- B. Late age of onset
- C. Insidious onset of symptoms
- D. Associated with depression

GOOD PROGNOSTIC FACTORS	BAD PROGNOSTIC FACTORS
Acute onset or abrupt onset	Insidious onset
Advanced age at onset (>35 yrs)	Early onset (<20 yrs)
Catatonic, paranoid subtype	Simple, disorganised, hebephrenic
Female sex	Male sex
Prominent positive symptoms	Prominent negative symptoms
Presence of affective symptoms	Absence of affective symptoms
Family history of mood disorders	Family history of schizophrenia

69. Physical examination of a 23-year-old man diagnosed with chronic hepatitis shows corneal changes that are visible to the naked eye, as shown in the image below. This patient is most likely to have which of the following conditions?

- A. Pulmonary emphysema
- B. Diabetes mellitus
- C. Basal ganglia atrophy
- D. Hypertrophic cardiomyopathy



70. 16-year-old boy comes to the emergency department due to sore throat and fever. He started having a mild sore throat after returning from summer camp about a week ago, and it has worsened in the last 2 days. The patient also has right neck pain and earache but no cough or shortness of breath. Enlarged and tender cervical lymph nodes are present. The patient is not able to fully open his mouth, but examination of the oral cavity shows pooling of saliva, a large right tonsil with swelling of the right soft palate, and deviation of the uvula to the left. A rapid test for *Streptococcus pyogenes* is negative. Which of the following is the most likely diagnosis?

- A. Acute tonsillitis
- B. Herpangina
- C. Parapharyngeal abscess
- D. Peritonsillar abscess

71. 58-year-old woman brings her elderly father to the office for a checkup. He has multiple medical issues, including diabetes, chronic pulmonary disease, and urinary incontinence. While the physician is seeing her father, the woman confides to the office receptionist that she reluctantly quit her job after her father moved in with her. He is no longer able to live independently, and she resents having to care for him. The father was mostly absent during the daughter's childhood due to business travel, and he divorced her mother when the daughter was 13 years old, with only sporadic contact with his children afterward. She also wishes her siblings would help care for him more. When her father comes out of the examination room, the daughter is extremely attentive to him, asking if the visit went okay and if he is comfortable and repeatedly offering to get him a drink of water before they return home. Which of the following defense mechanisms best explains this woman's behavior toward her father?

A. Altruism

B. Displacement

C. Projection

D. Reaction formation

72. 3-year-old boy is brought to the office due to nasal discharge for the past 2 weeks. His mother reports whitish nasal discharge that has become progressively thicker and more malodorous. The patient has had no fever, cough, or shortness of breath. Medical history includes congenitally acquired HIV, and the patient has taken antiretroviral therapy since birth. Three months ago, CD4 cell count was $520/\text{mm}^3$. He has received all age-appropriate vaccinations. There is purulent drainage from the right nostril, and the right nasal mucosa and turbinates are erythematous and swollen. There is no discharge from the left side, and the left turbinates are pink and nonedematous. The oropharynx and tonsils are normal. There is no cervical lymphadenopathy. Which of the following is the most likely cause of this patient's current symptoms?

- A. Acute bacterial sinusitis
- B. Allergic rhinosinusitis
- C. Frontal sinus agenesis
- D. Intranasal foreign body

73. An 65-year-old woman comes to the emergency department due to worsening eye pain. The patient noticed a rash around the left eye yesterday and, this morning, began experiencing left eye pain, redness, and decreased vision. Physical examination shows scattered vesicles on the left side of the forehead and nose and on the left upper and lower eyelids. Left eye examination shows conjunctival erythema, and fluorescein staining demonstrates linear, branching ulcerations on the cornea. Which of the following pathogens is most likely responsible for this patient's current condition?

- A. Adenovirus
- B. *Candida albicans*
- C. Herpes simplex virus
- D. Varicella-zoster virus

74. 46-year-old man is hospitalized due to suicidal ideation and hearing voices. The patient has become increasingly depressed over the past month and has been unable to work. Last week he told his wife that he was "tormented by voices" and that "death would be a relief." She brought him to the hospital after she found him staring at a blank screen on the television and not responding to her questions. The patient was prescribed risperidone, lithium, and escitalopram by his psychiatrist, but his wife is unsure if he takes them regularly. He has a history of bipolar disorder since age 18 with multiple hospitalizations for both manic and depressive episodes. Temperature is 37 C (98.6 F), blood pressure is 125/80 mm Hg pulse is 68/min, and respirations are 12/min. Routine laboratory results are within normal limits, lithium level is within therapeutic range, and a toxicology screen is negative. During the evaluation, the patient stares blankly and is mute and motionless. He resists all instructions to move. When the physician lifts the patient's arm, it remains in the exact same position after she lets go. Which of the following is the most appropriate next step in management?

A. Benztropine

B. Clozapine

C. Increase risperidone

D. Lorazepam

Catatonia

Clinical features

- Immobility or excessive purposeless activity
- Mutism, stupor (decreased alertness & response to stimuli)
- Negativism (resistance to instructions & movement)
- Posturing (assuming positions against gravity)
- Waxy flexibility (initial resistance, then maintenance of new posture)
- Echolalia, echopraxia (mimicking speech & movements)

75. All of the following are major diagnostic criteria for allergic fungal sinusitis except?

- A. Presence of nasal polyps
- B. Eosinophilic mucin without invasion
- C. Characteristic CT findings
- D. Positive fungal culture

Major**Minor**

Type I hypersensitivity

Nasal polyposis

Characteristic CT findings

Eosinophilic mucin without invasion

Positive fungal stain

Asthma

Unilateral disease

Bone erosion

Fungal cultures

Charcot-Leyden crystals

Serum eosinophilia

76. A patient presents with left-sided head tilt which on straightening leads to right hypotropia. This increases on extroversion and right head tilt. Paralysis of which of the following muscles is involved?

- A. Right superior oblique
- B. Right superior rectus
- C. Right inferior oblique
- D. Left inferior oblique

77. Which of the following features differentiate delirium from dementia in Alzheimer's disease?

- A. Acuity of onset and agitation
- B. Acuity of onset and loss of consciousness
- C. Visual hallucinations and impaired memory
- D. Agitation and irritation

78. 62-year-old woman comes to the emergency department due to acute eye pain. She has a history of seasonal allergies and developed itchy, watery, red eyes after working outdoors in her garden. The patient used over-the-counter eye drops to treat her allergy symptoms, and several hours later, she began experiencing severe right eye pain and headache. On examination, the right eye appears red with a hazy cornea and dilated pupil that responds poorly to light. Palpation of the globes reveals notable firmness on the right compared to the left. Visual acuity in the affected eye is severely diminished. Which of the following medications was most likely used by this patient?

A. Alpha-adrenergic agonist

B. Beta blocker

C. Mast cell stabilizer

D. Nonsteroidal anti-inflammatory drug

79. 52-year-old man comes to the OPD for evaluation of hearing loss in the left ear. The patient works in sales and is frequently on the phone. Over the past several months, he has had difficulty hearing phone conversations in the left ear and must move the headset to the right. He has no pain or vertigo but sometimes feels off-balance when walking at night and holds onto walls. A tuning fork placed on the forehead is lateralised to the right ear. Air conduction is greater than bone conduction bilaterally. There is decreased sensation to touch on the left side of the face. Which of the following is the most likely cause of this patient's symptoms?

A. Cholesteatoma

B. Herpes zoster oticus

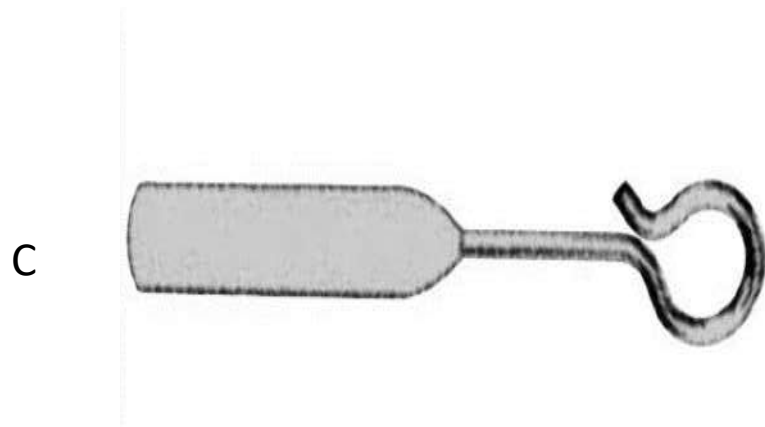
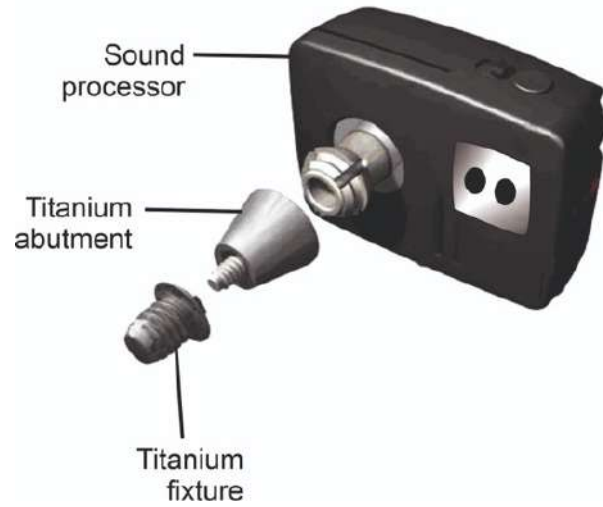
C. Ménière disease

D. Vestibular schwannoma

80. 15-year-old girl is brought to the office by her mother for evaluation of moodiness and behavioural concerns over the past year. Her mother says, "She always stays out late. I've already tried grounding her, but she doesn't seem to care. When I ask her to do household chores, she gets extremely annoyed and slams her bedroom door in my face." The patient is failing multiple classes at school and blames her grades on "boring teachers" and being unfairly penalized for handing in assignments late. A few months ago, the patient was sent to the principal's office after refusing to put away her cell phone during a test. When the principal said her phone would be confiscated, she started arguing and impulsively cursed at him, resulting in suspension from school. On mental status examination, the patient is irritable and sarcastic, frequently interrupting when her mother is speaking. Which of the following is the most likely diagnosis?

- A. Conduct disorder
- B. Intermittent explosive disorder
- C. Normal adolescent behaviour
- D. Oppositional defiant disorder

81. Which of the following devices can be used for managing a patient with B/L external auditory canal atresia?



82. Which of the following procedure is shown in the image given below?

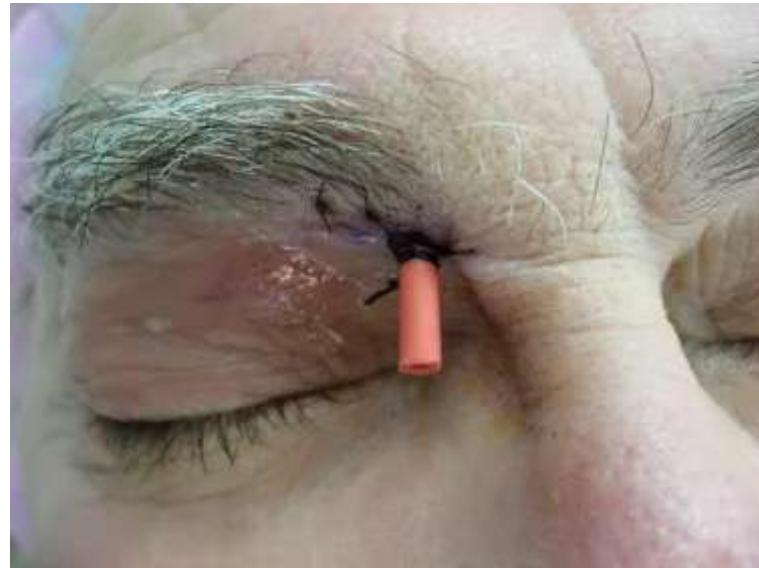
- A. Nasolacrimal duct syringing
- B. Anterior ethmoidal nerve block
- C. Infraorbital nerve block
- D. Trephination of frontal sinus



82. Which of the following procedure is shown in the image given below?

- A. Nasolacrimal duct syringing
- B. Anterior ethmoidal nerve block
- C. Infraorbital nerve block
- D. Trephination of frontal sinus



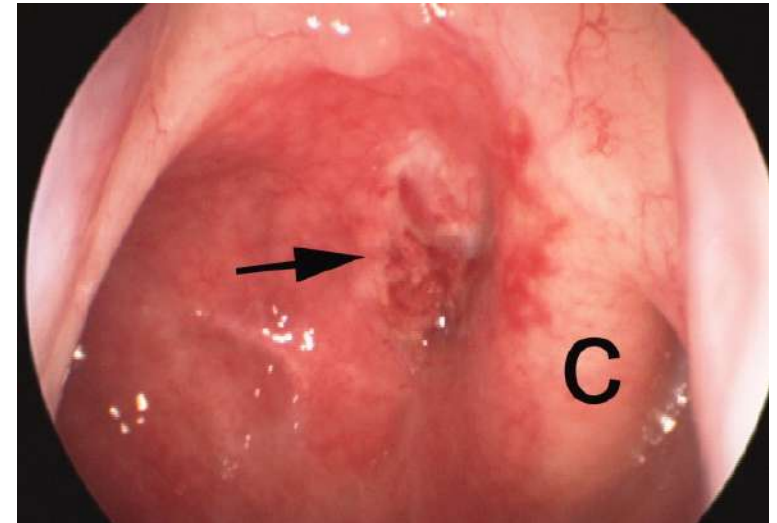


83. 34-year-old woman comes to the emergency department due to sudden onset of tingling and numbness in her left hand. She is an assistant chef at a nearby restaurant and was lifting a box earlier in the day when she heard a "pop" and her left hand went numb. Her fingers, entire left hand, and wrist are numb, with normal sensation above her wrist. The patient describes her numbness as feeling like "pins and needles". Medical history is insignificant. The patient allows the nurse to take her vital signs but refuses any further physical examination, insisting that it will worsen her discomfort. The patient asks for a doctor's note to excuse her from work, fearing that her condition will worsen if she does not take some time off to heal. Which of the following is the most likely diagnosis?

- A. Conversion disorder
- B. Factitious disorder
- C. Malingering
- D. Mononeuropathy

84. 64-year-old man comes to the office due to a month of slowly progressive left-sided neck swelling. He has also had persistent nasal congestion, frequent epistaxis, and headaches. The patient has a history of rhinosinusitis and attributes his current symptoms to another episode of infection. Nasopharyngoscopy findings are shown. Which of the following is most strongly associated with this patient's current condition?

- A. Aflatoxin B exposure
- B. Epstein-Barr virus infection
- C. Excessive use of nonsteroidal anti-inflammatory drugs
- D. Recurrent bacterial sinusitis



85. Which sequence of dyes is employed for ocular surface examination and dry eye staining?

A. Fluorescein → Rose Bengal → Lissamine green

B. Rose Bengal → Lissamine green → Fluorescein

C. Lissamine green → Rose Bengal → Fluorescein

D. Fluorescein → Lissamine green → Rose Bengal

85. Which sequence of dyes is employed for ocular surface examination and dry eye staining?

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B. Rose Bengal → Lissamine green → Fluorescein

C. Lissamine green → Rose Bengal → Fluorescein

D. Fluorescein → Lissamine green → Rose Bengal

86. You are attending physiology viva. The examiner asks you who recorded the first EEG. You say "I don't know "The examiner feels bad for you and gives you a clue that "the name sounds like something you get commonly in McDonalds". You remember the name and answer correctly. What type of memory has been implicated here?"

- A. Semantic memory
- B. Implicit memory
- C. Associative learning
- D. Priming

87. 64-year-old woman is brought to the clinic by her husband due to a fall. She was walking in her living room when she tripped over an electrical cord. The patient has had several other ground-level falls in the last 6 months but has had no significant injuries. She also gave up driving a year ago following a near-miss motor vehicle accident. Ophthalmic examination reveals reduced vision in her peripheral visual fields bilaterally and an elevated intraocular pressure. After discussion of treatment options, the patient is initiated on timolol ophthalmic drops. Which of the following structures is the most likely target of this medication?

- A. Ciliary epithelium
- B. Ciliary muscle
- C. Pupil sphincter
- D. Trabecular meshwork

88. 68-year-old woman comes to the office due to oral pain. For the last 3 days, she has had mild pain in the left lower jaw associated with swelling of the gums. The patient had a loose molar extracted 3 weeks ago and the extraction site never completely healed. Medical history is notable for osteoporosis treated with calcium, vitamin D, and zoledronic acid. She has never used tobacco or alcohol. Vital signs are normal. Examination shows gingival edema and erythema surrounding an area of exposed bone at the left lower jaw. Which of the following is the most likely diagnosis?

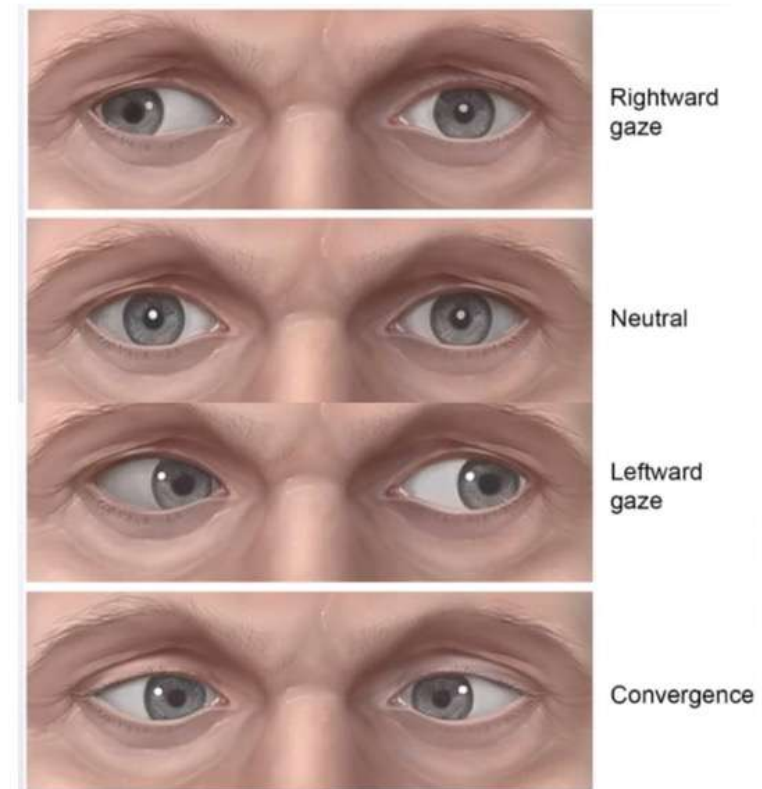
- A. Malignancy
- B. Herpetic stomatitis
- C. Mucormycosis
- D. Osteonecrosis

89. 55-year-old man is brought to the office due to unusual movements of his face and extremities. He lives in a group home and was noted to be sticking out his tongue, smacking his lips, and twisting his body from side to side actions that were disruptive to the other residents. The patient has a history of schizoaffective disorder that has been treated with risperidone, fluoxetine, and clonazepam for more than 20 years. Examination shows protruding and twisting movements of the tongue, dystonic postures of the neck, and squirming movements of the torso. Which of the following is the most likely underlying cause of this patient's symptoms?

- A. Dopamine receptor downregulation
- B. Dopamine receptor super sensitivity
- C. GABA receptor upregulation
- D. Glutamate receptor super sensitivity

90. 38-year-old woman comes to the emergency department due to sudden-onset double vision that started immediately after she woke up. The patient notices that her vision worsens when looking to the right. She has no headache, weakness, or numbness. Neurologic examination, including visual acuity, is normal with the exception of the ocular findings shown in the image below. A lesion involving which of the following structures is most likely causing the observed ocular findings in this patient?

- A. Abducens nerve
- B. Lateral geniculate nucleus
- C. Medial longitudinal fasciculus
- D. Occipital lobe



91. What are the objective tests used to assess hearing?

1. BERA (Brainstem evoked response audiometry)
2. OAE (Otoacoustic emission)
3. PTA (Pure tone audiometry)
4. Tympanometry

A. 1, 2, and 4

B. 1,2, and 3

C. 2, 3, and 4

D. 1, 2, 3, and 4

92. 38-year-old woman is brought to the emergency department by her sister after developing acute anxiety, headache, nausea, and vomiting while eating dinner. She has no known food allergies but does have a history of seasonal allergies treated with diphenhydramine. The patient has a long history of major depressive disorder and panic attacks and has had poor response to several antidepressants. For the past year, she has been treated with escitalopram, which she discontinued a week ago. Yesterday, she started taking phenelzine for depressive symptoms. On arrival, the patient is agitated, disoriented, diaphoretic, and tremulous. Temperature is 38.9 C (102 F), blood pressure is 170/110 mm Hg, pulse is 115/min, and respirations are 24/min. Physical examination shows dilated pupils and bilateral tremors. Deep tendon reflexes are 3+ bilaterally. Which of the following is the most likely cause of these findings in this patient?

- A. Anticholinergic toxicity
- B. Malignant hyperthermia
- C. Serotonin syndrome
- D. Tyramine-induced hypertensive crisis

93. 43-year-old man is found wandering in the street in winter and is brought to the emergency department by a passing motorist. The patient is confused and unable to provide any history. He has no previous hospital records. The patient appears disheveled and lethargic but follows commands. The oral mucosa is moist, and there are extensive dental caries. The patient has no cervical lymphadenopathy, but there is bilateral, nontender swelling of the cheeks consistent with salivary gland enlargement. Which of the following is the most likely cause of this latter finding?

A. Alcoholism

B. Mumps

C. Pleomorphic adenoma

D. Salivary gland stone

94. A 60-year-old patient complains of decreased distant vision but he does not use spectacles for near vision. The image of his ocular examination is given below. What is this type of refractive error called?

- A. Index myopia
- B. Axial myopia
- C. Curvatural myopia
- D. Positional myopia

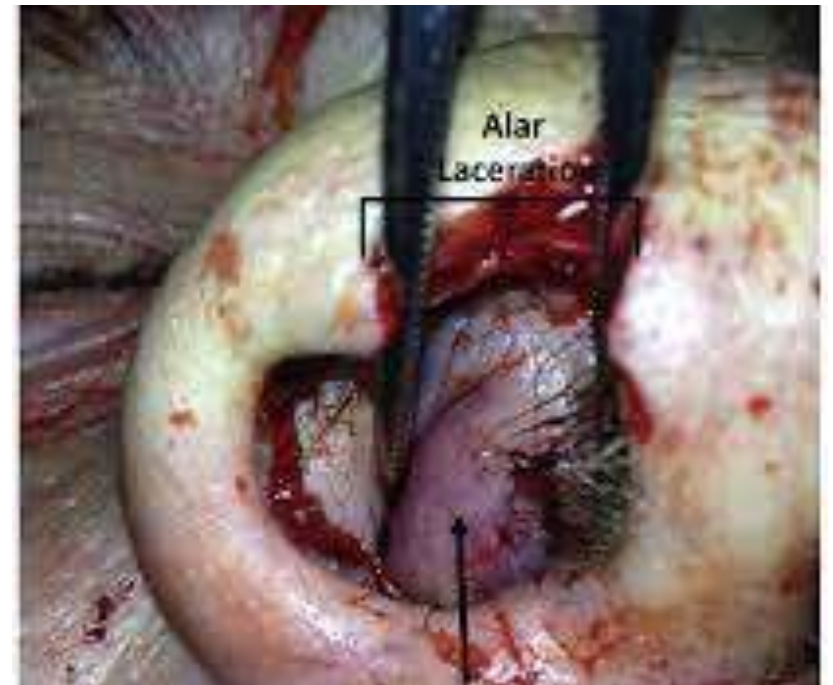


95. Identify the incorrect option:

- A. Disorder of thought possession-Obsession
- B. Disorder of thought content-Delusion
- C. Disorder of thought formation-Hallucination
- D. Disorder of thought stream-Circumstantiality

96. A 22-year-old man comes to the urgent care clinic after being hit in the face with a basketball. He is currently unable to breathe through his nose. Oxygen saturation is 99% on room air. Examination is shown. Which of the following is the best next step in management of this patient?

- A. Apply ice packs to the nose and recommend NSAIDs
- B. Embolize the sphenopalatine artery
- C. Incise and drain the nasal septum
- D. Insert anterior nasal packing



97. Identify the incorrect statements:

1. Richardson and Koeppe are direct gonioscopes.
2. Narrowing of isopters and the appearance of a blockage within the blind spot are early changes in MS
3. Most common ocular manifestation of COVID-19 is papillary conjunctivitis
4. The Haigis-L regression formula is used for lens power calculation in patients undergoing cataract surgery with a past history of LASIK for myopia.
5. Correct method is to put the eye ointment first, drops 15 min later

A. 1, 2, 3, 4, 5

B. 2, 3, 4

C. 1, 3, 5

D. 2, 3, 5

98. 17-year-old boy is brought to the emergency department by his parents due to a recent change in behavior. The patient was previously polite and soft-spoken, but he has become intermittently irritable, impatient, and rude over the past few weeks. His parents initially dismissed his new behavior as a "phase", however, they grew more concerned last night when they discovered that he had stolen money from their wallets and later found him pacing in his room at 4:00 AM. When questioned by his father about his strange behavior, the patient said, "I have to be careful because I'm being followed by CIA agents." Temperature is 36.6 C (97.9 F), blood pressure is 164/98 mm Hg, pulse is 124/min, and respirations are 18/min. On physical examination, the patient appears fearful. He is sweating profusely and his pupils are dilated. Which of the following is the most likely diagnosis for this patient?

- A. Amphetamine intoxication
- B. Anticholinergic poisoning
- C. Opioid withdrawal
- D. Cannabis intoxication

99. 23-year-old comes to the ED with the feeling of food being stuck in the throat. Laryngoscopy reveals fish bone lodged in the left piriform recess. During retrieval of the fish bone, a nerve deep to the mucosa overlying the recess is damaged. Which of the following is most likely to be impaired in this patient as a result of his iatrogenic injury?

- A. Cough reflex
- B. Gag reflex
- C. Mastication
- D. Salivation

100. A husband and wife presented to the OPD with complaints of premature ejaculation during intercourse. What is the non-pharmacological technique you will advise to the patient?

- A. Cognitive behavioral therapy
- B. Exposure and response prevention therapy
- C. Squeeze technique
- D. Sensate focus therapy

Thank you!

Psychiatry Ophthalmology Ent BTR Test

Dr. Zainab Vora

Cerebellum
Get the balance right

1. A 25-year-old homeless man with a history of schizophrenia is brought to the hospital by local police. He destroyed a television set at a local electronics store and then became extremely agitated and violent when employees attempted to intervene. The patient's speech is difficult to follow, and he is distracted, seemingly listening to voices that only he can hear. He is admitted to the psychiatric ward and given haloperidol, which calms him down. Later that evening, however, he walks to the nurses' station and says, "What's happening to me?" The patient is upset and refuses to sit down, pointing to his neck. Physical examination shows a sustained contraction of his neck to the right side. Which of the following is the most appropriate next step in management?

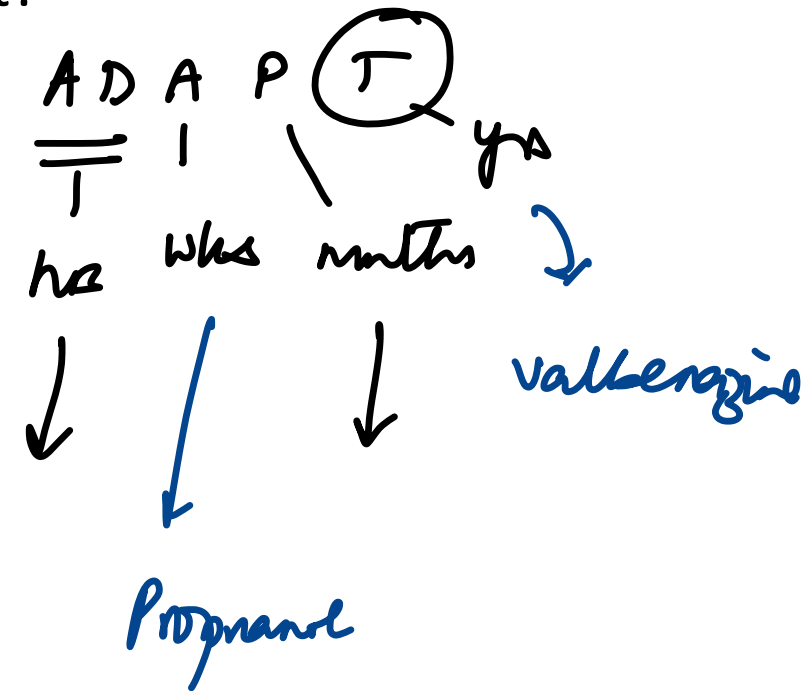
A. Haloperidol x

B. Diphenhydramine / Benztropine

C. Levodopa x

D. Lorazepam ← Catatonia

DOC
anticholin



2. Organize the subsequent structures in the auditory pathway, beginning from the receptors and moving towards the cortex.

1. Auditory Cortex ✓
2. Spiral ganglion
3. Cochlear Nucleus ✓
4. Lateral lemniscus •
5. Inferior colliculus ✓
6. Olivary complex ✓
7. Medial geniculate body ✓

A. 3-2-4-6-7-5-1

B. 2-3-4-6-7-5-1

C. 2-3-6-4-5-7-1

D. 3-2-6-4-7-5-1



EE COL IMA

Cerebellum
Get the balance right

3. A 75-year-old man comes to the office due to a 2-year history of slowly worsening vision in both eyes. The symptoms are worse at night and the patient has stopped driving at night due to excessive glare from oncoming headlights. Medical history is unremarkable. Which of the following is the most likely etiologic factor for this patient's eye condition?

A. Accumulation of sorbitol in the lens ^{xx}

B. Age-related oxidative injury

C. Decreased collagen fibril production ^{xx}

D. Ischemia and neovascularization ^{xx}

Cataract

B-crystalline

4. 26-year-old man is brought to the emergency department after an attempted suicide by medication overdose. He has had 2 seizures in the past hour. Temperature is 38.8 C (102 F), blood pressure is 90/60 mm Hg, pulse is 110/min, and respirations are 22/min. The patient is not oriented to time, place, and person. Pupils are dilated and respond poorly to light. The skin is flushed and dry. Abdominal examination shows reduced bowel sounds. ECG shows prolonged QRS complexes (0.19 sec). Toxicology studies are pending. What is the drug of choice in this condition?

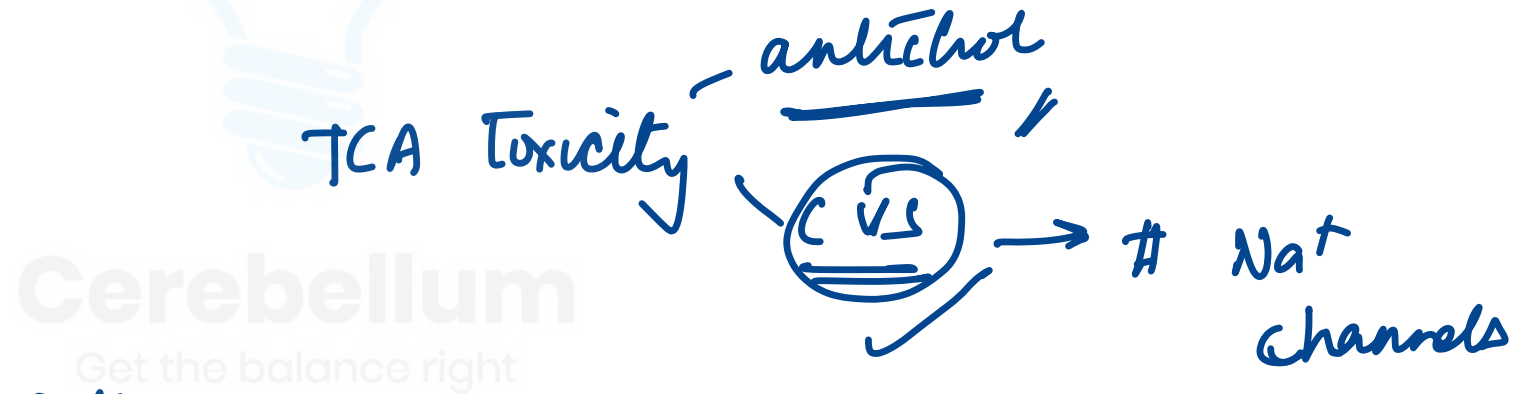
A. Urinary acidification

B. Hemodialysis

C. Sodium bicarbonate

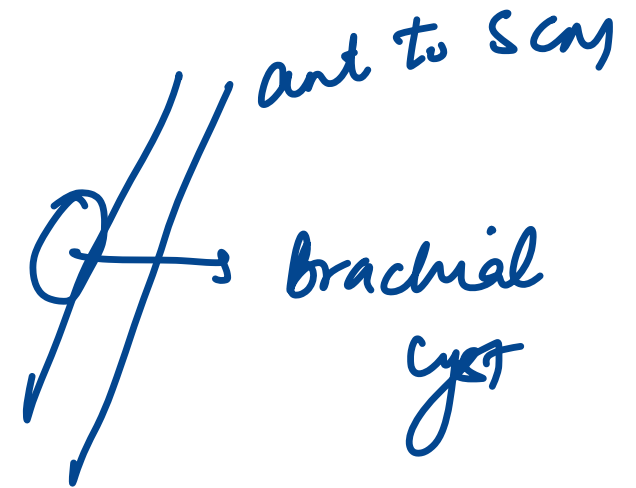
D. Lorazepam

QRS > 100ms



5. 1-year-old boy is brought to the clinic for mass in the neck. The parents noticed a small area of nontender swelling in the neck a month ago. Over the last few days, it has enlarged and become painful, and the patient has a fever. Examination shows a mobile, tender, fluctuant, and warm mass approximately 2 cm in diameter that is located at the right mandibular angle. There is purulent drainage from the skin surface just anterior to the right sternocleidomastoid muscle. This patient's clinical findings are most likely due to which of the following embryologic processes?

- A. Failed descent of a pharyngeal pouch structure ~~x~~
- B. Failed neural crest migration into a pharyngeal arch ~~x~~
- C. Inadequate fusion of the mandibular prominences
- D. Incomplete obliteration of a pharyngeal groove / cleft



6. 7-year-old boy is brought to the clinic due to poor vision at night. The patient developed mild difficulty seeing at night about 4 months ago, and it has slowly worsened. Visual field examination shows visual loss in the midperiphery. External eye examination reveals normal tear formation. Funduscopic examination shows bilateral optic disc pallor, attenuation of retinal vessels, and areas of dark discoloration in the retina. Which of the following is the most likely mechanism of this patient's visual impairment?

A. Biallelic inactivation of RB1 gene ✗

B. Genetic progressive retinal dystrophy

C. Increased intracranial pressure ✗

D. Poor aqueous outflow due to narrow angle ✗

RP
|
rod dystrophy

Cerebellum
Get the balance right

7. Identify the incorrect pair of questionnaires with the disorders:

A. SCOFF - Eating disorders ✓

~~B. STOP-BANG- Opioid abuse~~ OSA

C. CAGE -Alcohol abuse

D. SPIKES-Breaking bad news

• INSPIRE → child abuse ↓

• GATHER → contraceptive



8. An 82-year-old woman with Alzheimer dementia is brought to the OPD for evaluation of new-onset drooling. The patient lives in a nursing home and the staff noticed that she has been having liquid drip out of the right side of her mouth when they feed her. She has also been very tearful over the past 2 weeks, particularly at night when she wakes up crying and clutching her ear. The patient has type 2 diabetes mellitus that requires insulin and multiple medications. Her last hemoglobin A1c was 8.5%. Temperature is 38 C (100.4 F), blood pressure is 140/90 mm Hg, pulse is 96/min, and respirations are 18/min. Physical examination of the right ear canal shows granulation tissue with a surrounding white drainage in the floor of the canal. The tympanic membrane is clear and mobile to pneumatic otoscopy. There is facial asymmetry with some downward deviation of the right corner of the mouth. Which of the following is the most likely causative organism for this patient's condition?

A. Aspergillus niger

B. Herpes zoster

C. Pseudomonas aeruginosa

D. Rhizopus species

MOE



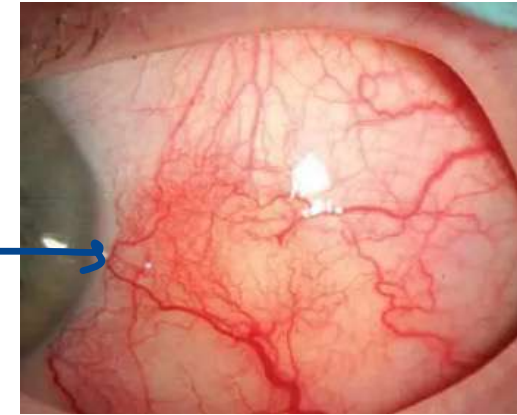
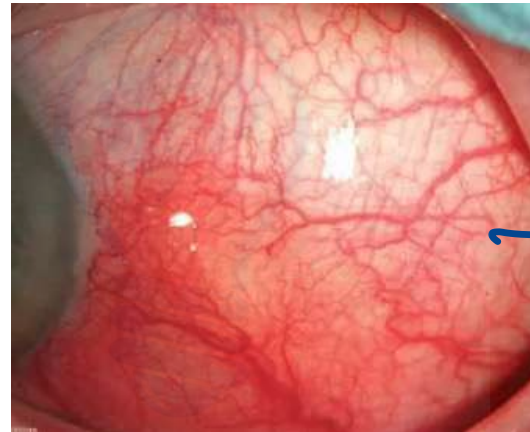
9. After the administration of phenylephrine, the depicted images reveal an observed alteration. What is the likely diagnosis?

A. Nodular scleritis

B. Nodular episcleritis

C. Tenon's cyst

D. Nodular phlycten



10. 32-year-old woman is brought to the OPD by her husband due to his concern about her increasing social withdrawal. The patient prefers to stay at home. When she must run errands, she insists that her husband accompany her. She stopped working 2 years ago due to severe episodes of anxiety that would occur unpredictably for no apparent reason. Since that time, the patient has continued to experience these episodes several times a week and has become more socially isolated due to fears of having another episode. She avoids seeing her friends except for the rare occasions when they come to her home. The patient feels badly that she is no longer working and contributing to the household finances. She has occasional difficulty falling asleep and problems with concentration. Although she is not looking for work, she keeps her home clean, cooks nightly, and enjoys watching television. Which of the following is the most likely cause of this patient's social withdrawal?

→ anxiety / fear.
A. Avoidant personality disorder

B. Panic disorder

C. Social anxiety disorder

D. Schizoid personality disorder

"content"

PD

+

agoraphobia

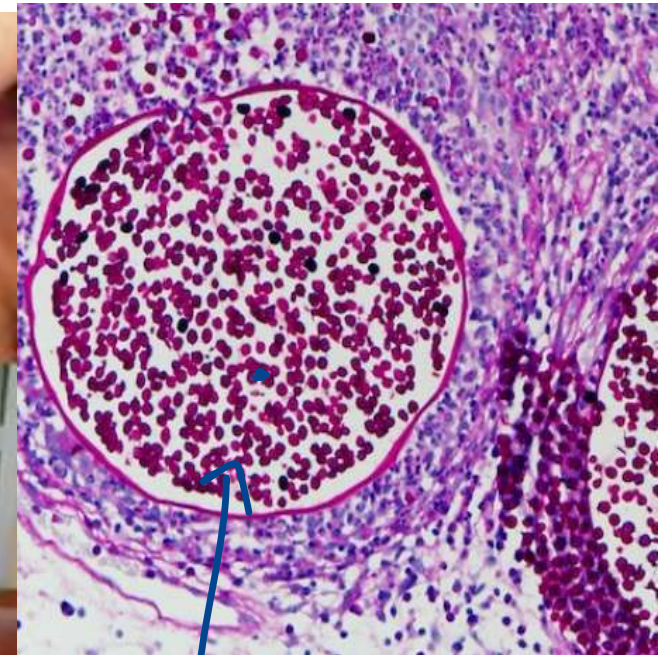
11. A male cattle breeder from South India presents with frank, intermittent epistaxis. The description of the nasal examination is provided below. A biopsy was conducted, and the histopathological examination findings are depicted as presented below. What is the probable diagnosis?

A. Nasal polyp

~~B. Rhinosporidiosis~~

C. Hemangioma

D. Rhinopyma



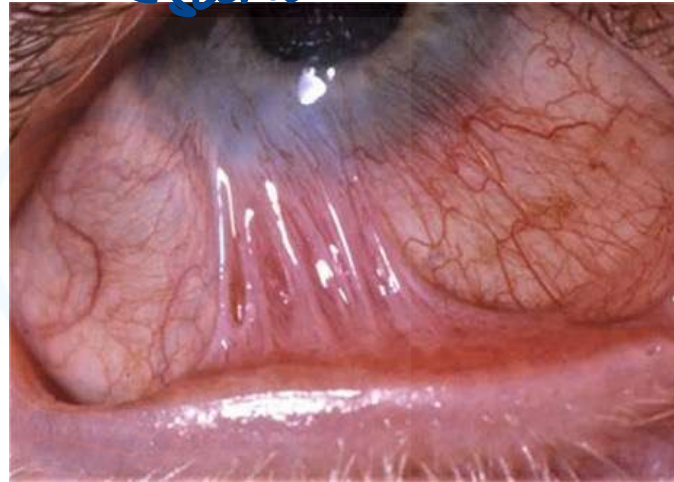
Cerebellum
Get the balance

12. Identify the incorrect pair:

A. A Ankyloblepharon



B. B Symblepharon
same



*bulbar-palpebral
conjunctive*

~~C~~ Congenital ptosis



blepharospasm

D Bupthalmos



blue

13. 35-year-old man with a history of bipolar and substance use disorders comes to the emergency department due to depression, auditory hallucinations, and suicidal ideation. His medications include lithium and escitalopram. The patient has a history of 5 psychiatric hospitalizations and 2 past suicide attempts, including overdose on his medications and attempted hanging. The patient has been using "anything I can get my hands on" because his depression is unbearable. He is hospitalized and placed on suicide precautions. His dose of escitalopram is increased to target his depression, and risperidone is added to treat the hallucinations. His lithium level is 1.0 mEq/L. On the second day of hospitalization, the patient reports muscle pains, abdominal cramping, nausea, and diarrhea. His temperature is 37.2 C (99 F), blood pressure is 130/85 mm Hg, and pulse is 84/min. The patient is alert and restless, and his pupils are dilated bilaterally. Bowel sounds are hyperactive and neurologic examination is normal. Which of the following is the most likely explanation for his symptoms?

A. Serotonin syndrome ^{xx}

B. Cocaine withdrawal

C. Lithium toxicity

D. Opioid withdrawal

diarrhea + dilated pupil (+ CLONUS)

- miosis (xx)

0.8-1.2

Cold turkey

✓✓

lacr^m diarrhea yawning
 ⊙ mydriasis

14. A 34-year-old woman comes to the office due to double vision. The patient first experienced difficulty focusing her eyes while at work yesterday. On awakening this morning, her symptoms had progressed to frank diplopia. A complete physical examination is performed, including a full neurologic assessment. Shining light into the patient's right eye causes constriction of her right pupil, but not the left pupil. Shining light into her left eye causes constriction of only her right pupil. Which of the following additional physical examination findings is likely to be found in this patient?

A. Absence of the left corneal reflex V/VII

B. Drooping of the left eyelid LPS $3rd$ Lt

C. Inability to close the left eye 7^{th}

D. Inward deviation of the left eye 6^{th}

15. 25-year-old man comes to the office for evaluation of a painless mass in his mouth. The patient has had the mass for many years and has had no growth or other changes in the mass over that time. The patient smokes a pack of cigarettes a day and drinks 2 or 3 alcoholic beverages on the weekends. Examination of the mass is seen below. Which of the following is the most likely cause of this patient's mass?

A. Bone tumor

B. Toxin mediated

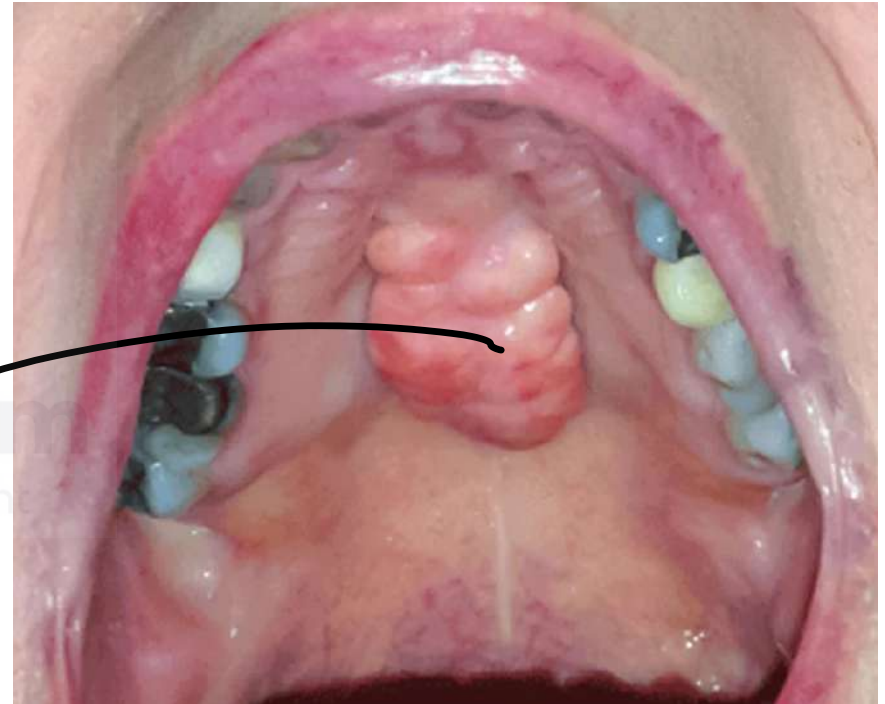
x

C. Malignant transformation

x

D. Viral infection

x



Torus
palatinus

Exostosis

16. Identify the true statements:

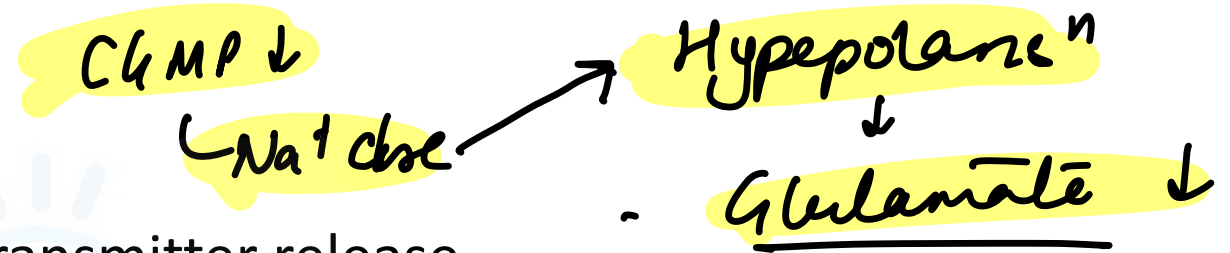
1. Clozapine is the DOC for Treatment-resistant schizophrenia (TRS) defined as lack of response to at least two different antipsychotics, including at least one second-generation antipsychotic, given in adequate dosage and for an adequate duration (at least 4-6 weeks)
2. More affinity for D4 than D2 $D4 > D2 \downarrow$ $5HT2 > D2$
3. It is the only antipsychotic with antisuicide property
4. Life threatening idiosyncratic side effect that requires monitoring is agranulocytosis

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

17. A 68-year-old man with a long history of using chewing tobacco comes to the office for follow up of squamous cell carcinoma (SCC) of the oral cavity. A month ago, the patient was diagnosed with SCC of the left lateral tongue. He underwent resection, the surgical specimen showed clear margins, and he started additional treatment. The patient recently noticed a second ulcerative lesion on the right lateral tongue. Biopsy is performed and it also shows SCC. The second tumor most likely arose from which of the following mechanisms?

- A. Chemotherapy-induced malignancy
 - B. Field cancerization ²⁰⁰
 - C. Hematogenous spread
 - D. Immunologic privilege
-
- The diagram consists of a central horizontal line with three arrows pointing downwards and to the right. The top arrow points to the text 'Sqcc -oral ← tobacco'. The middle arrow points to 'Colon ca ← diet'. The bottom arrow points to 'BCC ← UV rad'. The text 'Cerebellum Get the balance right' is faintly visible in the background.

18. What is the mechanism of action when the retina is exposed to light?



A. Hyperpolarization, increase in neurotransmitter release

~~B. Hyperpolarization, decrease in neurotransmitter release~~

C. Depolarization, decrease in neurotransmitter release

D. Depolarization, increase in neurotransmitter release

19. A pregnant mother was on SSRIs. The risk of which of the following is increased in the newborn?

1. ~~Low APGAR score~~
2. ~~ADHD~~
3. ~~Persistent pulmonary hypertension~~
4. ~~Delayed developmental milestones~~

A. 1,3

~~B. 1,2,3,4~~

C. 2,3,4

D. 1,2,3



Cerebellum
Get the balance right

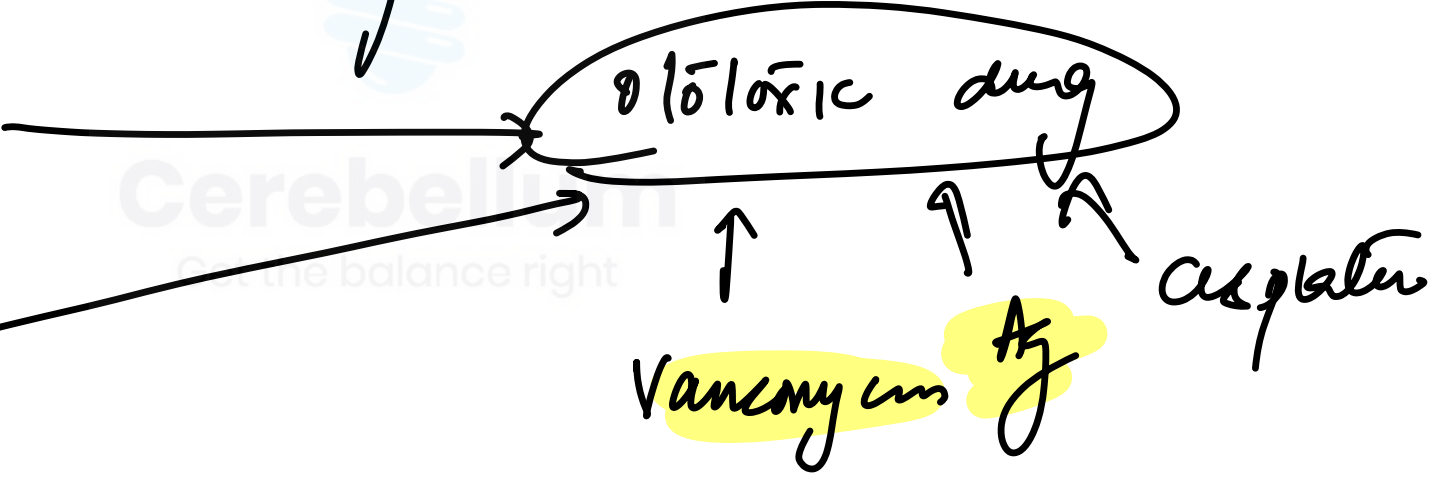
20. A 58-year-old man comes to the OPD due to muffled hearing and difficulty understanding speech over the past several weeks. Medical history includes hypertension, coronary artery disease, ischemic cardiomyopathy, and chronic kidney disease. He has had repeated hospitalizations for acute heart failure decompensation and was recently treated for acute prostatitis. Vital signs are within normal limits. Otoscopic examination shows no abnormalities. Audiometry reveals symmetric high-frequency sensorineural hearing loss. Which of the following medications is the most likely cause of this patient's current symptoms?

A. Aspirin *salicylates*

B. Ciprofloxacin

C. Furosemide

D. Sacubitril-valsartan



21. Which of the following is not a feature of keratoconus?

- A. Haab's striae
- B. Munson's sign
- C. Irregular astigmatism
- D. Scissoring reflex

Buphthalmos

↓
Vogt striae

Oil - ophthalmology

Fleischer

Rizutti

22. 22-year-old man comes to the OPD due to irregular sleep for the past 3 months. The patient says, "Med school has become more stressful, and I have been feeling more fatigued since my girlfriend broke off our relationship last month." He is often sleepy during the day and sometimes falls asleep unintentionally during classes. The patient goes to bed at 1 AM and awakens at 9 AM. After classes, he avoids socializing and frequently returns straight to his dorm room to nap. The patient also describes weird things happening as I fall asleep, like hearing whispering voices and seeing colorful animals. He describes another unusual experience last week when he suddenly felt weak in his face and knees following an upsetting phone call with his ex-girlfriend. Which of the following is best treatment for the patient?

~~A. Modafinil~~

B. Ropinirole x

C. Lorazepam x

D. Fluoxetine x

Cerebellum
Get the balance right

Cataplexy - sudden loss
of muscle
tone

23. A 33-year-old woman comes to the office due to intermittent dizziness. The patient describes a sensation of severe spinning accompanied by intense nausea that lasts 1-2 hours. She feels unsteady during these episodes and has to lie down with her eyes closed for relief. She also hears a "mechanical humming" sound in in her right ear during these episodes. The patient has no associated headaches, ear pain, or ear discharge. On examination, air conduction is greater than bone conduction in both ears. When the base of a tuning fork is placed against her forehead, the sound is heard more prominently in the left ear. Which of the following is the most likely cause of this patient's condition?

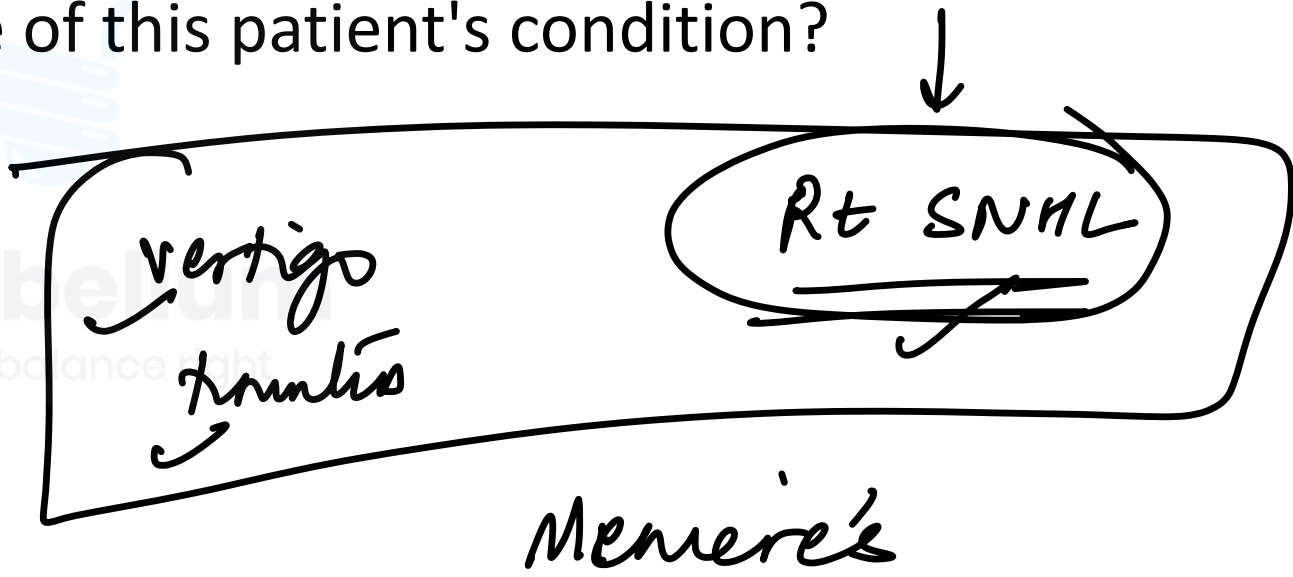
A. ~~CSOM~~

B. ~~Otosclerosis~~

C. Elevated endolymphatic pressure

D. SCC dehiscence

→ CHL



24. 45-year-old woman comes to the office due to progressive visual difficulty with night driving and reading road signs and fine print. The patient has systemic lupus erythematosus, which is treated with hydroxychloroquine and prednisone. She avoids sun exposure due to photo sensitivity and has vitamin D deficiency for which she takes a vitamin D supplement. Examination shows opacities on the posterior side of the lenses in both eyes. Optic discs are normal. Ocular movements are full. The remainder of the examination shows no abnormalities. Which of the following is the most significant contributing factor for the eye findings in this patient?

A. Hydroxychloroquine ~~XX~~

B. Lack of sun exposure //

C. Prednisone

D. Systemic lupus erythematosus ~~XX~~

Calaract

SLÉ

GTCS

25. 42-year-old woman, gravida 1 para 1, comes to the office for evaluation of insomnia following the birth of her son 5 weeks ago. The patient says she wakes up each night to breastfeed him but is unable to go back to sleep. She stays up most of the night thinking, "Why did I have a child so late in life? I'm already failing as a mother." The patient has a decreased appetite and no interest in seeing friends or family members other than her mother. On mental status examination, the patient appears restless and is tearful. Which of the following is the most likely diagnosis?

A. Adjustment disorder xx

B. Postpartum blues

C. Generalized anxiety disorder xx

D. Major depressive episode

5/9

>2 wks

Sadness +
SIG E CAPS

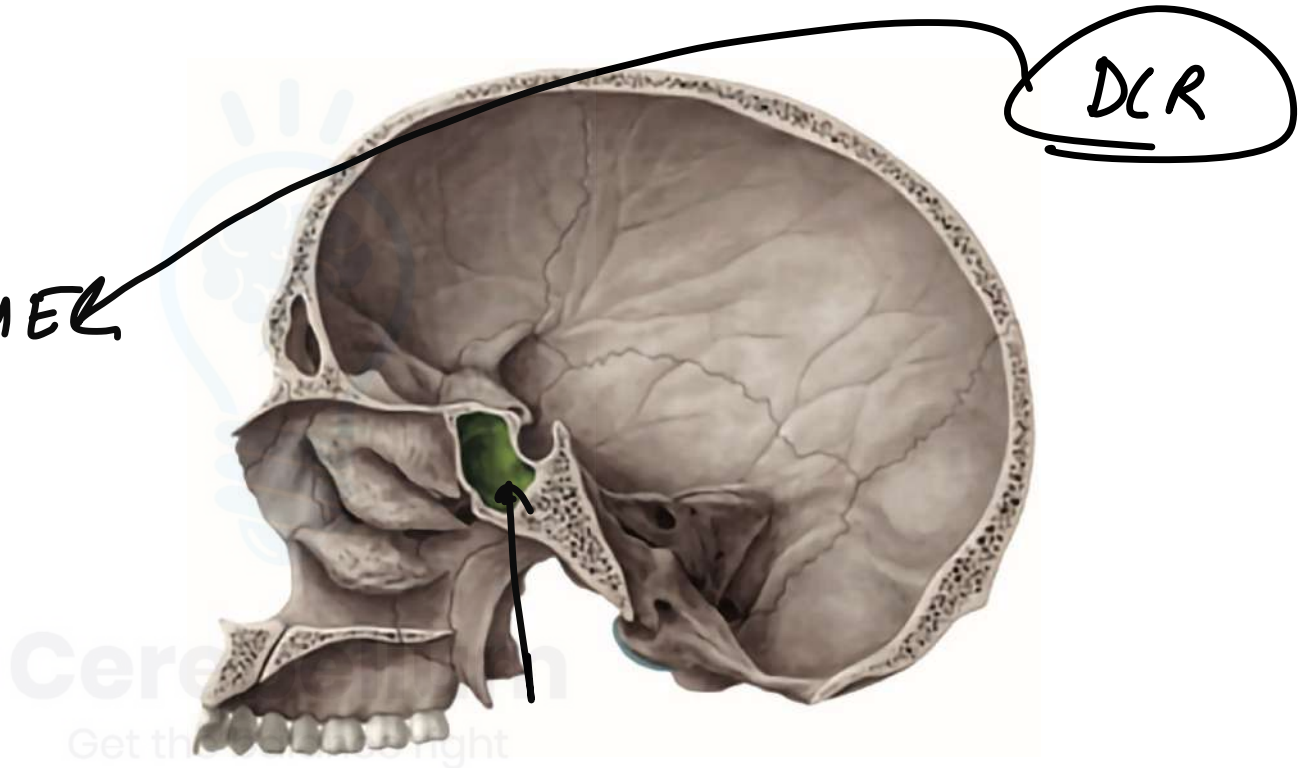
26. What is the site of drainage of the marked structure?

A. Superior meatus ← PE

B. Middle meatus ← FRAMEZ

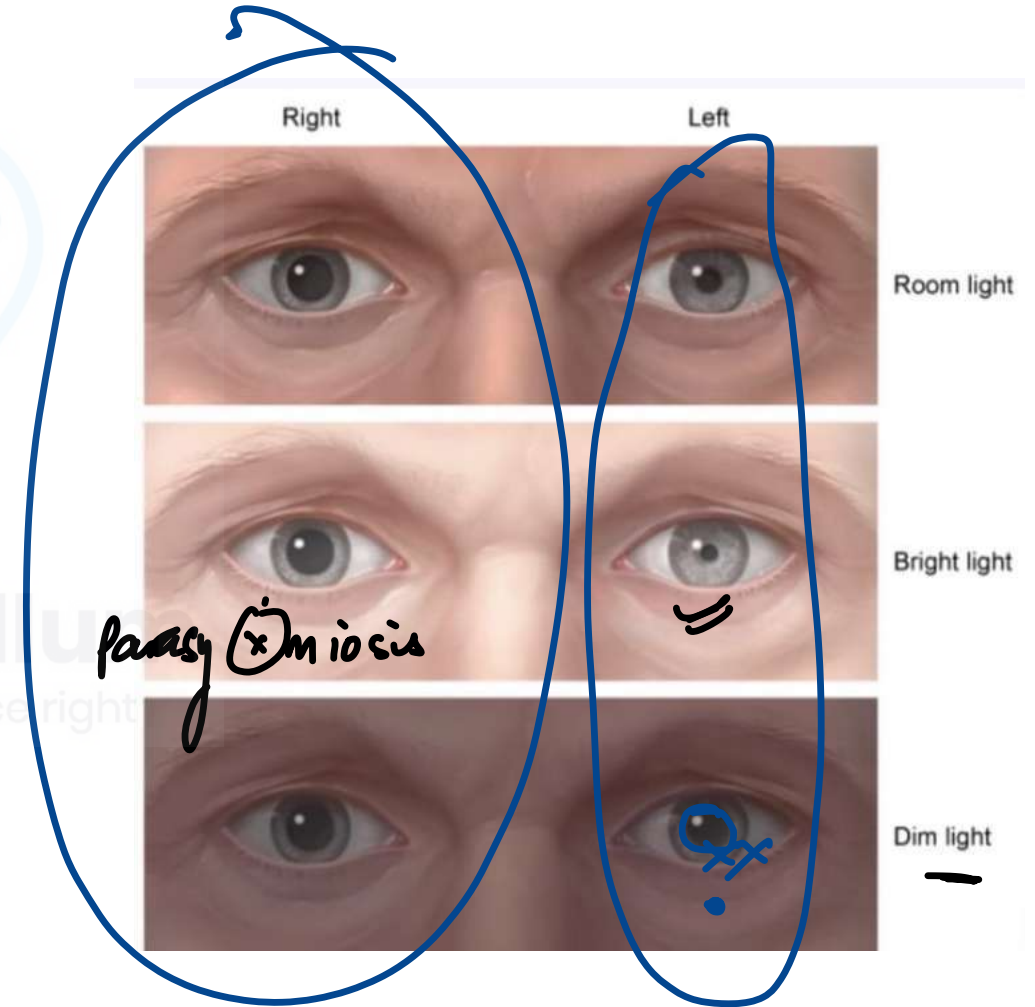
C. Inferior meatus ← NLD

D. Sphenoethmoidal recess



27. 32-year-old woman comes to the office for routine check up. Physical examination is unremarkable except for anisocoria. Pupillary examination findings in normal, bright, and dim light are shown in the image below. This patient's pupillary abnormality is likely due to a defect in which of the following pathways?

- A. Optic nerve of the right eye
- B. Parasympathetic innervation of the left eye
- C. ~~Parasympathetic~~ Parasympathetic innervation of the right eye
- D. Sympathetic innervation of the right eye



Anisocoria :

Bright light: Parasympathetic defects increase

Dim light: Sympathetic defects increase

Cerebellum
Get the balance right

28. 28-year-old woman is brought to the emergency department by her boyfriend due to bizarre behaviour over the past week. The patient abruptly quit her job saying, "My boss was trying to sabotage me because she's jealous of my intellect. The job was beneath me anyway. The time has come for me to run for politics myself." She feels annoyed and exclaims that she needs to leave immediately so that she can organize her campaign. The patient yells at her boyfriend for bringing her to the hospital, a minute later, she hugs him and tearfully says, "I can't imagine my life without you." She rarely drinks alcohol and does not use illicit substances. Physical examination shows no abnormalities. On mental status examination, the patient is easily agitated when interrupted and jumps from one topic to another. Which of the following is the most likely diagnosis in this patient?

~~A. Bipolar disorder~~

= BPD 1

B. Borderline personality disorder xx

C. Brief psychotic disorder

> 1d < 1mon

→ Delusion

D. Delusional disorder

x 1mon

Mania

- 1wk

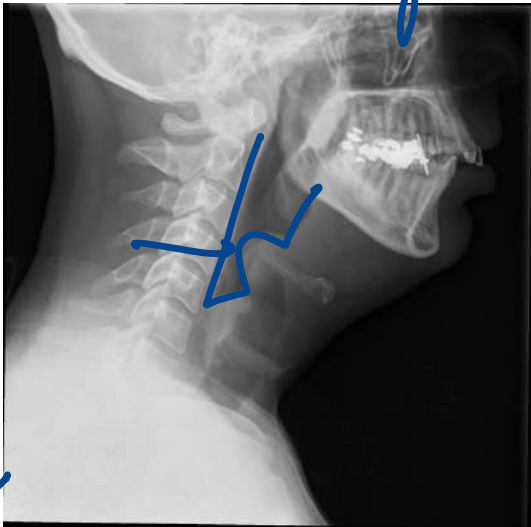
Mania

7/3

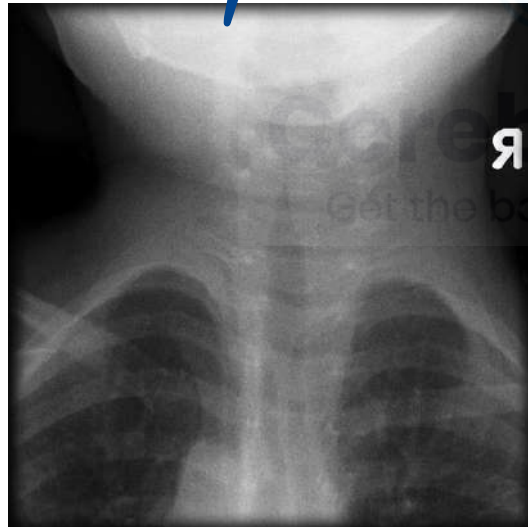
- Distractibility
- Impulsivity/indiscretion
- Grandiosity
- Flight of ideas/racing thoughts
- Increased activity/psychomotor agitation
- Decreased need for sleep
- Talkativeness/pressured speech

29. 5-year-old boy is brought to the emergency department by his parents due to sudden-onset difficulty breathing. The patient developed a mild cough and sore throat yesterday, his parents gave him acetaminophen, which improved his throat pain. However, this morning the patient had difficulty breathing and was sitting in bed and leaning forward refusing to lie down. Oxygen saturation is 92% on room air. The patient appears anxious, is drooling, and has inspiratory stridor. The uvula is midline, and there is no oropharyngeal or tonsillar erythema. Lung examination shows transmitted upper airway noises without wheezing or crackles. Which of the following is the most likely X-ray appearance for the child?

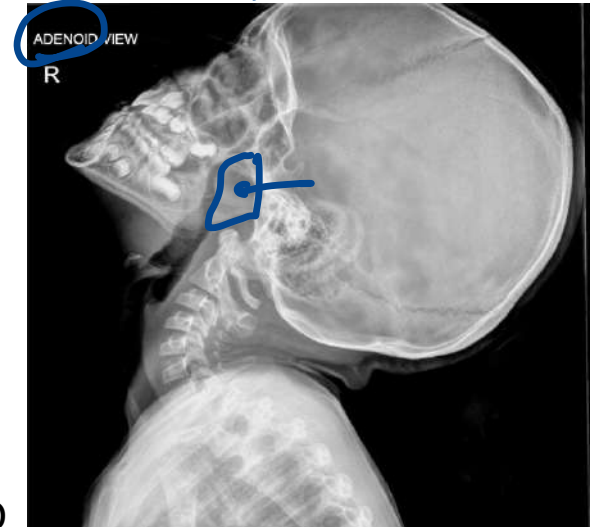
Thumb sign



Skier's



Adenoids



A

30. Which of the following is not a feature of complicated cataracts?

- A. Krukenberg spindle → pigmentary glaucoma
- B. Polychromatic lusture ✓
- C. Occurs after uveitis ✓
- D. Breadcrumb appearance ✓

31. A 76-year-old man comes to the office for follow-up of hypertension. He says, "I wouldn't be surprised if my blood pressure is up with all the stress I am under. My wife has been having an ongoing affair with our accountant I've known about this for years, and she continues to deny it. Even my children are in on it. They tell me that I'm imagining things." The patient reports that he monitors his wife closely and calls her multiple times a day to check on her whereabouts but admits that he has not found any evidence of the affair. He reports intermittent insomnia but no change in appetite. The patient occasionally forgets names and has word-finding difficulty. He continues to perform household chores and handle finances. The patient is alert and oriented, and his mood is irritable. Which of the following is the most likely diagnosis for this patient?

A. Alzheimer disease ✗

~~B. Delusional disorder~~

C. Major depressive disorder with psychotic features ✗

D. Paranoid personality disorder ✗✗

32. 58-year-old man comes to the emergency department due to vision disturbances. Over the past several weeks, the patient has had intermittent episodes in which he sees everything tinted with blue. His vision returned to normal within a few hours each time. When he woke up today, vision in the left eye was blurry. He has had no eye pain, conjunctival redness, or headache. Medical history is notable for hypertension, type 2 diabetes mellitus, hyperlipidemia, and erectile dysfunction. Physical examination shows an afferent pupillary defect, decreased visual acuity, and optic disc edema in the left eye. Discontinuing which of the following medications may improve this patient's vision?

A. Amitriptyline

B. Metformin

C. Ramipril

D. Sildenafil

blue

PDE ⊖

cGMP ↑

Hypotension

Cerebellum
Get the balance right

33. 28-year-old woman comes to the OPD due to persistent nasal congestion and stuffiness. The patient has a constant sensation of dripping in the back of her throat and states that food has tasted bland to her recently. A year ago, she came to the emergency department due to severe wheezing after taking naproxen for menstrual cramping. Family history is significant for asthma in her sister. Which of the following is the most likely cause of this patient's current symptoms?

A. Allergic rhinitis x

B. Fungal rhinosinusitis x

C. Nasal polyposis

D. Nasopharyngeal angiofibroma x

Asthma
NSAID → wheeze
nasal polyposis

34. Which of the following is true statement about Korsakoff syndrome?

A. Triad of confusion, ophthalmoplegia, and ataxia



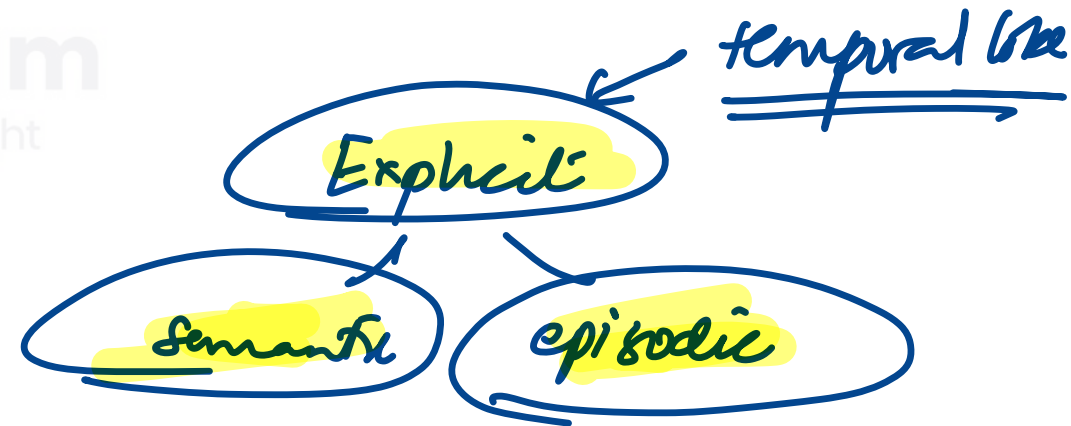
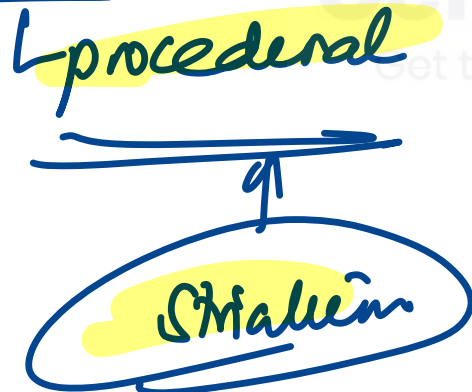
B. Loss of long-term memory but intact personality

x

C. Anterograde amnesia with loss of recent memory

AGA > RGA

D. Loss of implicit memory and immediate recall



35. 62-year-old man comes to the physician for a routine follow-up appointment. He has a 20-pack-year smoking history and recently began chewing tobacco. The patient's past medical history is significant for type 2 diabetes mellitus and hypertension. His last haemoglobin A1c was 8.3%. On oral examination, a white patch is seen on the buccal mucosa. The lesion appears to have a granular texture, is not indurated, and is not removed by scraping with a tongue depressor. There is no regional lymphadenopathy. Which of the following is the most likely cause of the oral lesion in this patient?

A. Aphthous stomatitis ~~xx~~

B. Candidiasis ~~xx~~

C. Squamous cell carcinoma

D. Leukoplakia

— ulcerⁿ /
Indurⁿ



36. What is the action of the superior oblique muscle?

- ~~A. Intorsion, abduction, depression~~
- B. Intorsion, adduction, elevation
- C. Extorsion, abduction, depression
- D. Extorsion, adduction, elevation

SIN RAD



bwks

37. A 53-year-old man comes to the office due to persistent fatigue. The patient started a therapeutic dose of fluoxetine 2 months ago after being diagnosed with major depressive disorder. He says, "Since I last saw you, I still feel like I'm dragging pretty much every day and have to force myself to go to work in the mornings. I haven't even wanted to have sex with my wife. That's been going on for almost a month, and it's really bothering me." Medical history includes hypertension treated with enalapril. He had a 4-kg weight gain over the past 2 months. Blood pressure is 130/84 mm Hg and pulse is 76/min. Which of the following is the most appropriate next step in pharmacotherapy?

SSRI

x

A. Continue fluoxetine and add aripiprazole

x

B. Continue fluoxetine and add methylphenidate

~~C. Discontinue fluoxetine and begin bupropion~~

(NDRI)

x wt gain
+ sexual d/c

D. Discontinue fluoxetine and begin venlafaxine

SNRI

Hypr

38. A 4-month-old boy is brought to the office for "noisy breathing", especially when he is lying on his back. The noise seems to improve when the patient is held upright or during "tummy time." He does not appear to have labored breathing and has never turned blue. Which of the following would confirm the most likely diagnosis for this patient?

A. Chest radiography *xx*

B. CT scan of the neck *xx*

C. Flexible fiberoptic laryngoscopy

D. Fluoroscopic barium swallow *xx*

Laryngomalacia
stridor up - prone



Cerebellum
Get the balance right

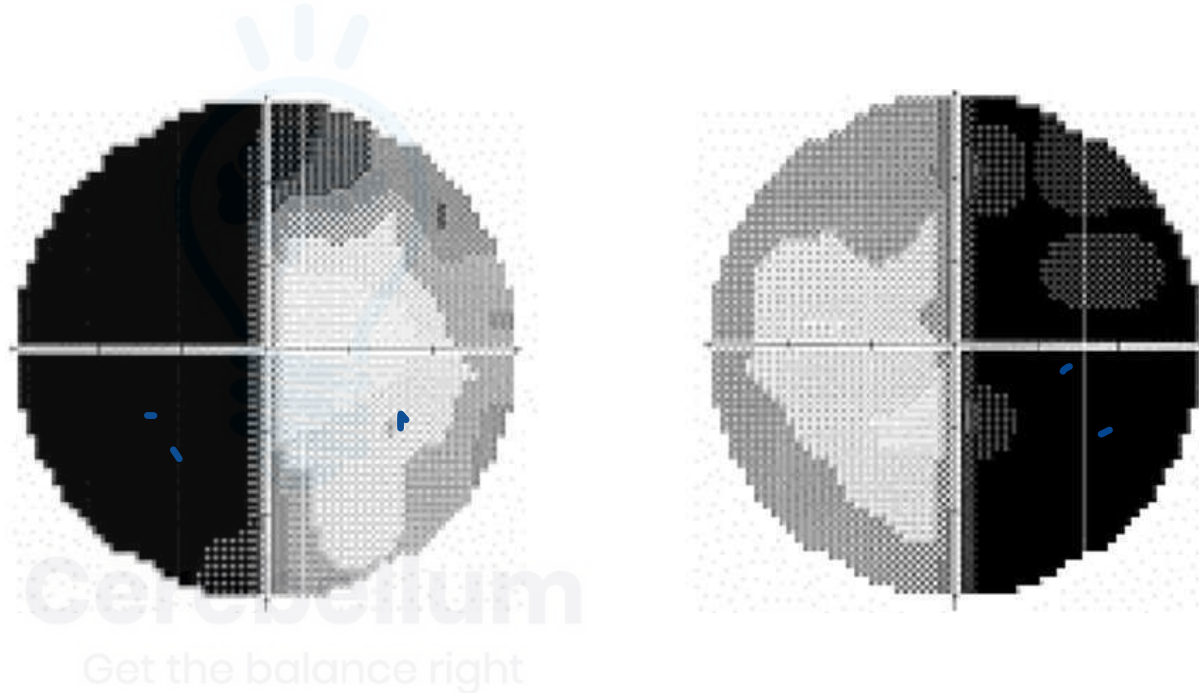
39. A patient is not able to see the lateral fields. He was having a mild headache for a few weeks and now presented to the clinic. Visual field examination shows the following finding. What is the probable site of the lesion based on the image displayed?

A. Optic chiasma

B. Occipital lobe

C. Optic tract

D. Optic radiation



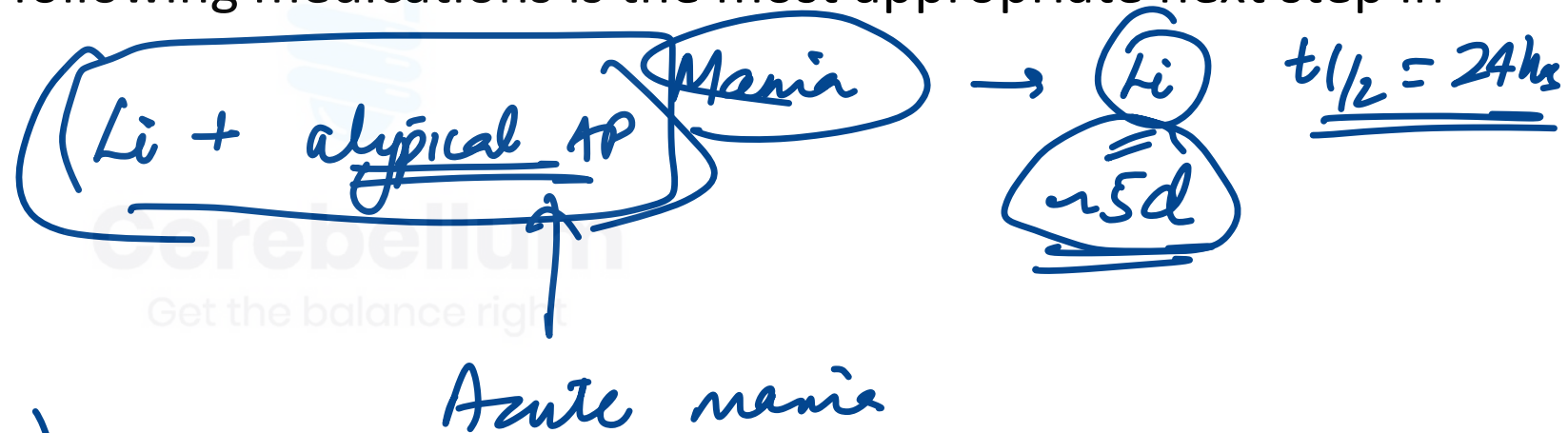
40. A 20-year-old woman is brought to the emergency department by police at 2:30 AM after she was caught attempting to scale a fence at the Rashtrapati Bhawan. The patient appears highly agitated and paces around the examination room. She has just flown in from out of state to "meet with the president about a foolproof plan for eliminating worldwide terrorism." The patient has barely slept for the past week due to her intensive work on this plan. The evaluation has to be stopped when the patient begins banging on the door and demanding to leave. Temperature is 37 C (98.6 F), blood pressure is 148/84 mm Hg, pulse is 98/min, and respirations are 22/min. Urine drug screen is negative. Administration of which of the following medications is the most appropriate next step in management of this patient?

A. Lithium

B. Clozapine ~~xx~~

C. Haloperidol ~~xx~~ (psychotic)

D. Olanzapine



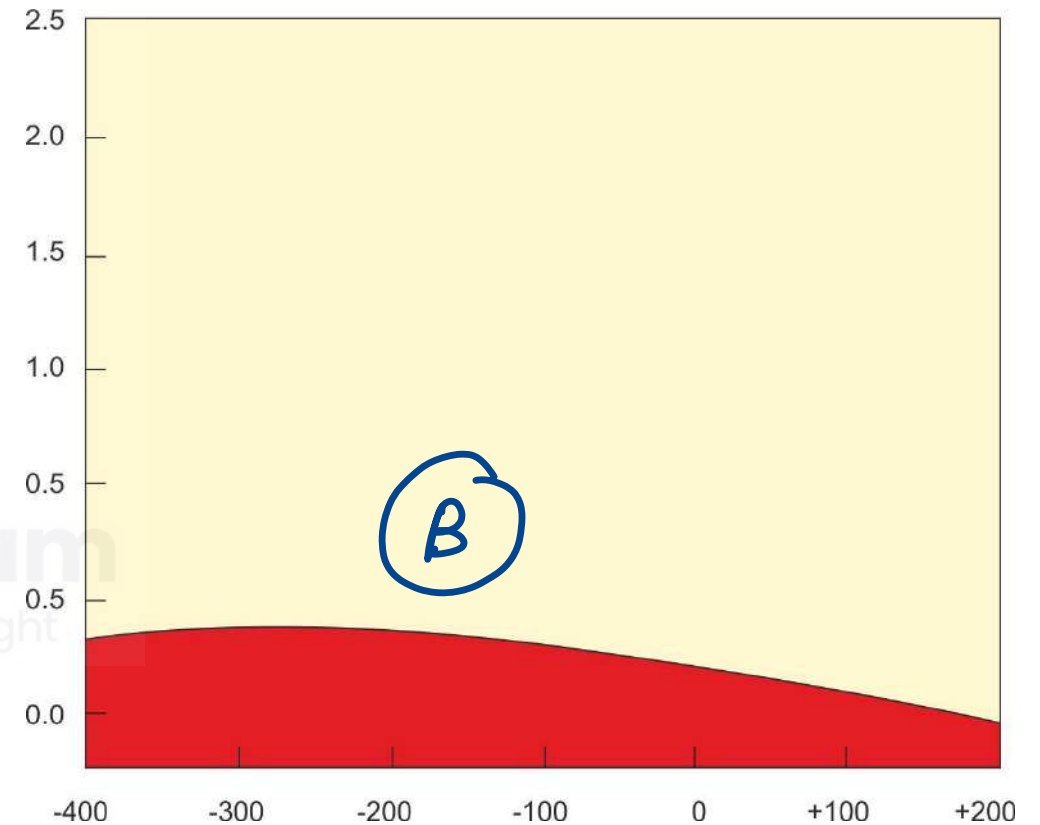
41. A 6-year-old boy presented with recurrent URTI, poor growth, high-arched palate, and impaired hearing. Tympanogram is given as follows. What would be the most appropriate management?

A. Grommet insertion

B. Adenoidectomy with grommet insertion

C. Myringotomy with grommet insertion

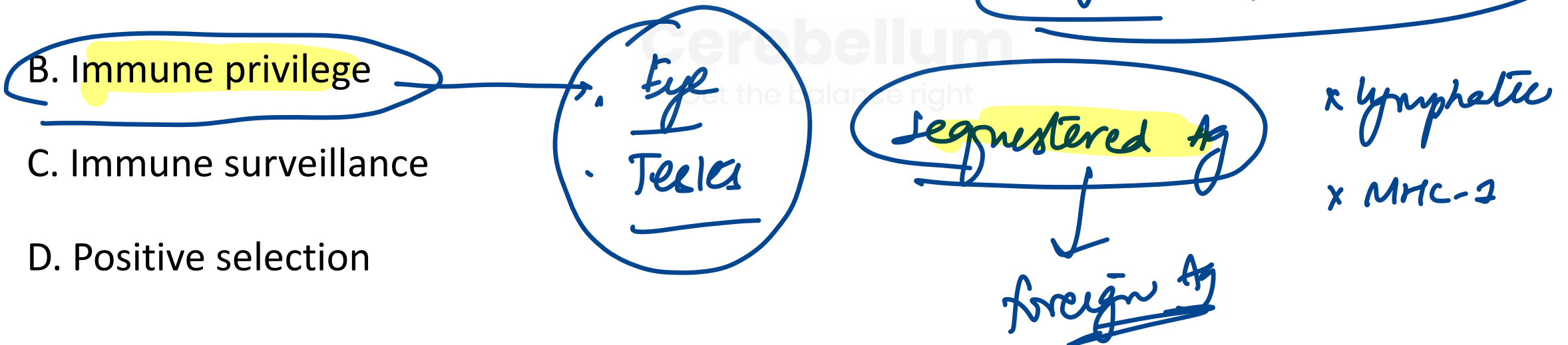
D. Myringotomy



Cerebellum
Get the balance right

42. 28-year-old man comes to the emergency department after sustaining an accidental penetrating injury to the left eye. Examination shows left globe perforation with decreased visual acuity. The right eye is normal. Surgical treatment is performed with subsequent improvement in vision. Two months later, the patient experiences pain, photophobia, and diminished vision in the right eye. Evaluation shows leukocytes in the anterior chamber and vitreous humor and choroidal deposits consistent with granulomatous panuveitis. Disruption of which of the following immune processes is most likely responsible for this patient's current condition?

- A. Complement regulation
- B. Immune privilege
- C. Immune surveillance
- D. Positive selection



43. 33-year-old woman comes to the office for management of chronic headaches. Her headaches are unchanged, although she now has shoulder and neck pain as well. The patient has been under a lot of stress lately and describes difficulty falling asleep, poor concentration, fatigue, and feeling overwhelmed. Although she has always been a "worrier," she reports worsening anxiety and irritability since she started a new job 8 months ago. The patient also finds herself making mental lists of all the things she must do the next day rather than concentrating on her work. By the time she gets home, she feels exhausted and often snaps at her children and husband. Which of the following is the most likely diagnosis?

A. Acute stress disorder ~~xx~~

B. Panic disorder ~~xx~~

C. Generalized anxiety disorder

D. Obsessive-compulsive disorder ~~xx~~

Cerebellum
Get the balance right

> 6 mo
'free-floating'
+
Symptoms — muscle tension

44. A 25-year-old woman comes to the office due to weight gain. The patient has gained 4.5 kg since breaking up with her boyfriend and starting a stressful job 4 months ago. She says, "I hate the way look. I try to limit my portions, but several times a week I end up eating a whole bag of cookies or a box of ice cream in one sitting, even if I'm not hungry." My stomach is so bloated that I can't fit into my clothes. It is so depressing." Her weight is always fluctuating although she has tried numerous diets over the years. She also does 45 minutes of aerobic exercise 3 times a week. The patient prefers to eat alone because she feels embarrassed and "out of control." She feels guilty about her behaviour, and her self-esteem is low. The patient is 160 cm (5 ft3 in) tall and weighs 60 kg. BMI is 23.4 kg/m². Which of the following is the most likely diagnosis?

A. Anorexia nervosa ~~xx~~

B. Binge eating disorder

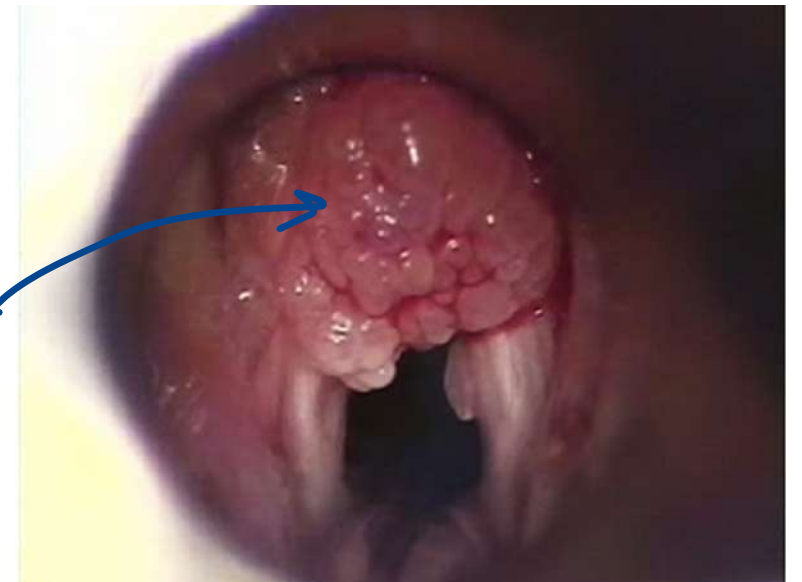
C. Body dysmorphic disorder

D. Bulimia nervosa ~~xx~~

Handwritten notes:
Binge eating → laxatives, vomiting, excessive exercise
- ptnt feels she is full

45. 3-year-old girl is evaluated for hoarseness that has been getting worse over the past 2 months. The patient has had no fever, shortness of breath, or change in activity level. She is eating normally, gaining weight well, and does not seem to be in pain. On physical examination, the ears are normal appearing with no middle ear fluid. The nasal mucosa is clear with no rhinorrhoea, and the turbinates are normal in size. There are no oral mucosal lesions. The tonsils are small and nonobstructive. There is no cervical lymphadenopathy. Aside from hoarseness, examination of cranial nerves is normal. Flexible laryngoscopy shows the following. Which of the following is the most likely cause of this patient's current condition?

- A. Anomalous airway development ✗
- B. IgE-mediated hypersensitivity reaction ✗
- C. Inherited deficiency of C1 inhibitor — HAE
- D. Maternally transmitted viral infection



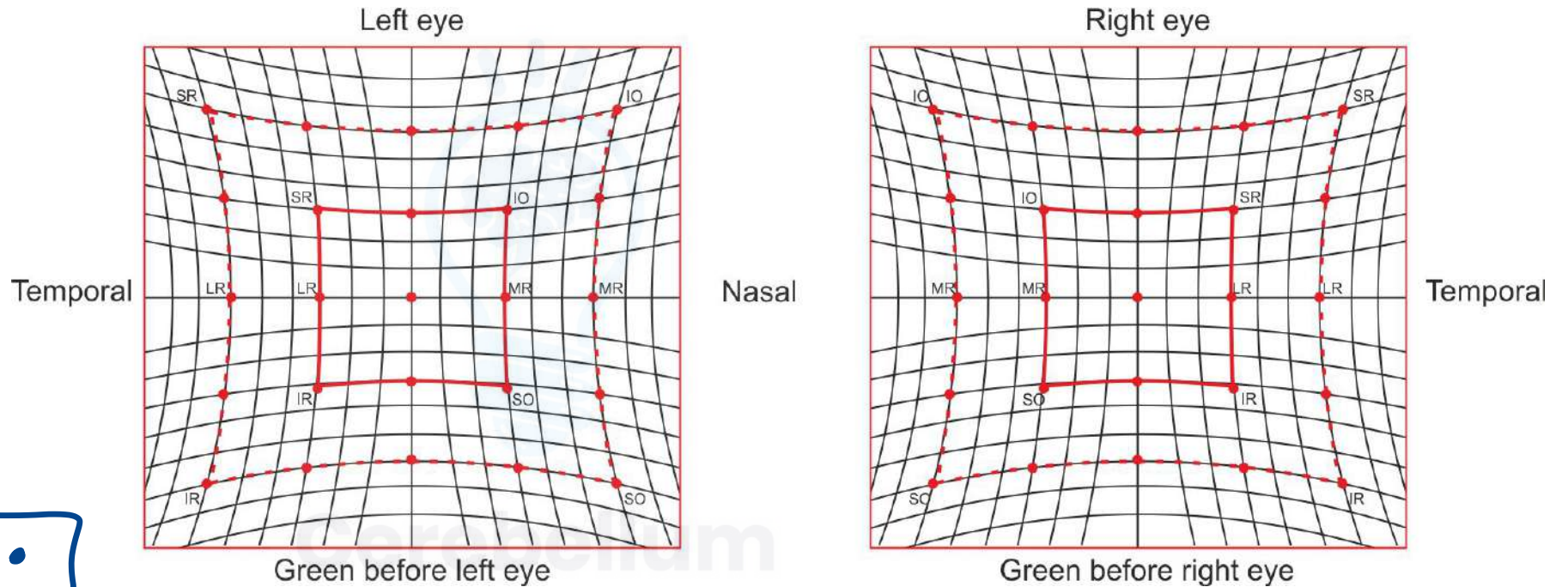
46. Identify the chart given in the picture below.

A. Hess chart *diplopia*

B. Snellen chart ✗

C. Amsler grid 

D. ETDRS chart - Early treatment diabetic retinopathy study ✗



Get the balance right

47. 23-year-old woman comes to the OPD for a follow-up. The patient had no known psychiatric history prior to being arrested by police 2 months ago after breaking into city hall to "find evidence of a secret organization plotting to take over the world." When police officers took her into custody, she was speaking so rapidly that they had difficulty understanding her. She was subsequently hospitalized and prescribed appropriate treatment, symptoms improved, and she was discharged 2 weeks later. Since then, the patient has been taking medications as prescribed. She is "doing much better" and has no symptoms. Vital signs are within normal limits and physical examination is unremarkable. The patient's speech is regular in rhythm and rate and she appears calm. She is fully oriented and does not appear distracted. Laboratory studies are unremarkable except for serum calcium of 13.4 mg/dL. This patient is most likely taking which of the following medications?

A. Aripiprazole

B. Carbamazepine

C. Lamotrigine

~~D. Lithium~~

Li

HyperPTH

Cerebellum
Get the balance right

48. A 12-month-old girl is brought to the OPD due to 3 days of fever, rhinorrhea, and nasal congestion. She has no allergies. Both parents smoke cigarettes and both older siblings received tympanostomy tubes as infants. The temperature is 39.4 C (102.9 F). The patient is irritable but easily consoled by her mother. External ear examination is unremarkable, and external ear canals are patent. Otoscopy findings are shown. Which of the following is the most appropriate next step in management of this patient?

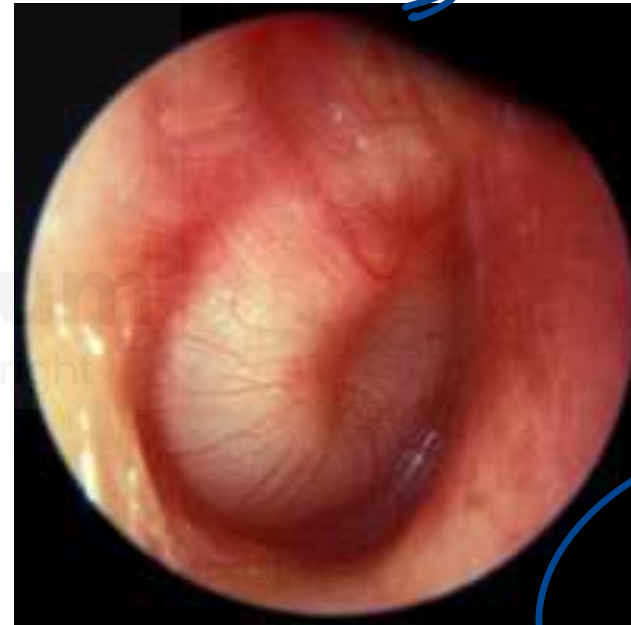
serous / blue ear
OM

~~A. Oral antibiotics~~ ^{DOC}

B. Supportive care and observation ^{XX}

C. Temporal CT scan ^{XX}

D. Tympanocentesis and culture ^{XX}

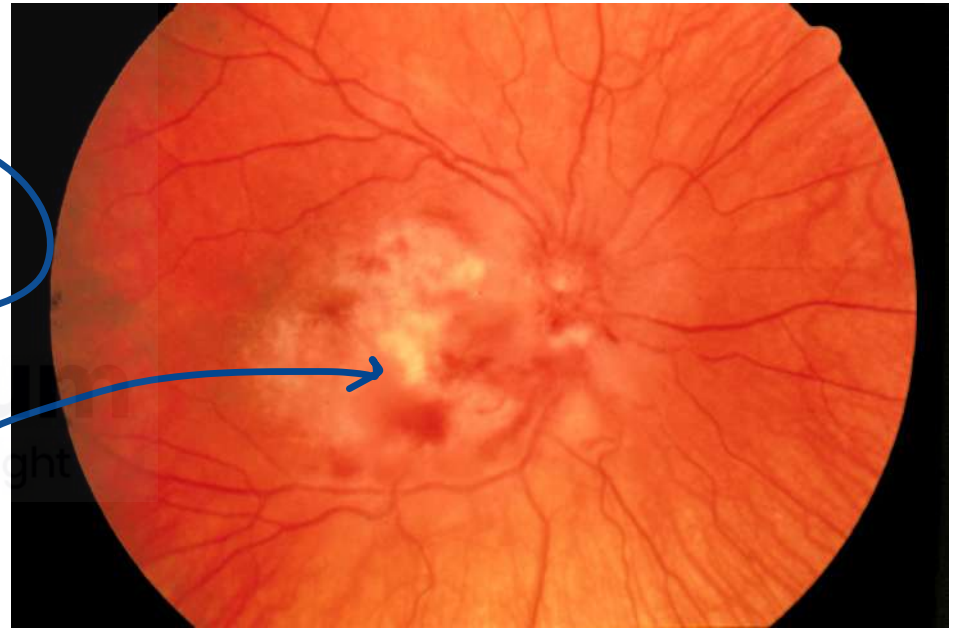


S-pneumonia
AD M
↓
Non lysozyme
H influenza

49. 43-year-old man comes to the emergency department due to painless, progressive visual impairment. The patient was diagnosed with sexually acquired HIV infection 4 years ago. He was previously started on antiretroviral therapy but has been noncompliant with his prescribed medications. Funduscopy reveals the findings seen in the image below. Which of the following medications is the best initial therapy for this patient?

- A. Acyclovir ~~xx~~
- B. Amphotericin B
- C. Clarithromycin
- D. Ganciclovir

CD4 CSD
↓
CMV Retinitis

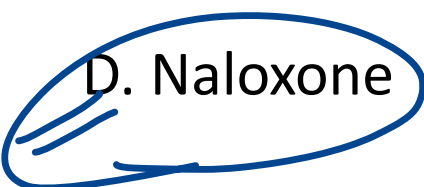


50. 37-year-old man is brought to the emergency department by ambulance after his sister found him unresponsive. Several days ago, he was discharged from an inpatient dual diagnosis facility, where he was treated for multiple substance use disorders and long-standing bipolar disorder. The patient's sister states that he has been depressed and has not taken any of his prescribed medications since discharge. Temperature is 36.7 C (98.1 F), blood pressure is 80/40 mm Hg, pulse is 62/min, and respirations are 10/min. The patient is obtunded and unresponsive to verbal commands. Physical examination shows 2-mm pupils. Fingerstick blood glucose is 72 mg/dL. The patient is ventilated by bag valve mask, and supplemental oxygen and intravenous fluids are initiated. Which of the following should be administered next?

- A. Flumazenil B2D
- B. Intravenous thiamine xx
- C. Haloperidol xx
- D. Naloxone

miocis - depressants

oprod



Rt

51. A patient presents with vertigo associated with horizontal nystagmus. The slow component is towards the left. What is the most likely diagnosis?

A. Posterior canal BPPV

Rt BPPV

B. Superior canal BPPV

C. Right hypoactive labyrinth

D. Left hypoactive labyrinth

BPPV - Hyperactive
serous

fast - i/L
Rt

Labyrinthitis
Purulent
Meniere's!
fth CN trauma

C/L - Fast component

Celebrant
Get the balance right

52. 31-year-old woman comes to the office due to transient visual changes that are characterized by "loss of vision for a minute" and commonly precipitated by bending forward or lifting objects. During the last 3 months, she has had persistent headaches that she attributes to migraines. The patient takes over-the-counter analgesics as needed. Blood pressure is 140/90 mm Hg and pulse is 72/min and regular. BMI is 32.4 kg/m². Funduscopic findings of the left eye are shown in the image below, with similar findings in the right eye. Which of the following is the most likely cause of the observed funduscopic findings in this patient?

A. Choroidal inflammation *xx*

B. Elevated intracranial pressure .

C. Elevated intraocular pressure *xx*

D. Optic nerve inflammation *xx*



Papilledema

53. A person often feels that his hands are contaminated and he is forced to wash his hands. Recently, he feels this repetitive, distressing thought of repetitive hand washing has begun affecting his performance. Which of the following is the best treatment option for this patient?

A. DBT

~~B. Exposure and response prevention~~ *OCP*

C. Systematic desensitization ← *Phobia*

D. CBT

54. 5-year-old boy is brought to the clinic by his parents due to hearing loss. Over the past year, the patient has had increased difficulty hearing normal conversations. He was born at 36 weeks gestation and was small for gestational age but otherwise has had no medical problems. A tuning fork held over the middle of the forehead sounds louder in the left ear. Tuning fork sounds are better heard with air conduction bilaterally. Which of the following is the most likely etiology of this patient's hearing loss?

A. Cholesteatoma ✗

B. Chronic otitis media ✗

~~C. Congenital infection~~

D. Otosclerosis ✗

SNHL - C/L

Rt ear SNHL

Cerebellum
Get the balance right

55. A 30-year-old female presents with redness and pain in the eye. Examination revealed an IOP of 38 mm of Hg, aqueous flare, and corneal precipitates. Which of the following drugs must be avoided in her?

A. Beta blockers

B. Mannitol

C. Carbonic anhydrase inhibitors

D. Prostaglandin analogs

flare
uvealis / CME

56. 52-year-old man comes to the office due to low energy and poor sleep. The patient reports feeling stressed since his divorce last year. He has difficulty sleeping through the night and awakens around 4:00 AM most mornings, earlier than he would like. At work, the patient has trouble concentrating and is becoming less productive. Although he loves his children, he no longer enjoys visiting them on the weekends and makes excuses to stay home. The patient says that food is tasteless, and his appetite has decreased significantly over the last 2 months. He has no psychotic features or suicidal ideation. This patient is most likely to have which of the following abnormalities?

- A. Enlarged lateral cerebral ventricles ← NPH / Schizophrenia
- B. ~~Increased~~ REM sleep latency [Ⓣ] ↓ -depression / narcolepsy
- C. Increased sensitivity to lactate infusion → Panic ∆
- D. Increased serum cortisol concentration HPA ax → ↑ cortisol

57. SAFE strategy for trachoma includes all except?

A. Surgery for trichiasis

B. Antibiotics

C. Facial cleanliness

~~D. Evaluation of control program~~



En

Cerebellum

Get the balance right

58. 14-year-old boy comes to the office due to right ear pain, pruritus, and discharge over the past week. He has had no cold symptoms, hearing loss, dizziness, or tinnitus. The patient returned yesterday from a 2-week vacation at Goa, where he swam daily. Temperature is 37.1 C (98.8 F), blood pressure is 110/70 mm Hg, and pulse is 75/min. Manipulation of the right ear during otoscopy elicits pain. There is prominent swelling and erythema of the ear canal with purulent and crusty debris. The tympanic membrane appears normal and has normal mobility. Which of the following is the most likely causative organism of this patient's current condition?

- A. Haemophilus influenzae type b
- B. Mucor
- C. Nontypeable Haemophilus influenzae
- D. Pseudomonas aeruginosa

Cerebellum
Get the balance right

GOE

MOE

ncc

TOC:

a) Leftizidene

b) Topical FR

c) Steroids
d) ML

59. A 42-year-old man is admitted to the hospital after sustaining fractures of his right femur and tibia in a motor vehicle collision. The patient becomes agitated, hypervigilant, and paranoid 12 hours after admission. He repeatedly tells the nurses that he can hear people in the corridor making insulting remarks about him. When hospital staff check the area near the patient's room, no one is found. Medical history is unremarkable, but psychiatric history is significant for cocaine, marijuana, and alcohol misuse. On examination, the patient is alert and oriented. Temperature is 37.2 C (99 F), blood pressure is 135/87 mm Hg pulse is 85/min, and respirations are 18/min. He is slightly tremulous and diaphoretic. Which of the following is the most likely diagnosis in this patient?

~~A. Alcoholic hallucinosis~~

B. Brief psychotic disorder ~~xx~~

C. Cocaine withdrawal ~~xx~~

D. Delirium tremens

12-48hrs
Get the balance right
↓↓
← delirium / > 48hrs

60. What test is not used for testing olfaction?

A. Smell diskettes

B. Arnold stick test

C. UPSIT

D. CC-SIT



Cerebellum
Get the balance right

Tests used for olfaction are as follows:

1. **Smell diskettes** are used as a screening test for olfaction. Reusable diskettes are used with the application of 8 different odorants.
2. **University of Pennsylvania Smell Identification Test (UPSIT)** is a commercially available, self-administered test. It uses microencapsulated odorants, which are released on scratching standardized odor-impregnated test booklets.
3. The 12-item version of UPSIT, also known as the **Cross-Cultural Smell Identification Test (CC-SIT)**, is useful for quantifying smell loss when less time is available. This test serves as a means to reliably assess olfactory function in less than 5 minutes.
4. **The Sniffin' Sticks test** is a new test of nasal chemosensory performance based on pen-like odor-dispensing devices. Semi-objective assessment of the patient's olfactory performance by means of 3 subtests: threshold test, identification test and discrimination test.

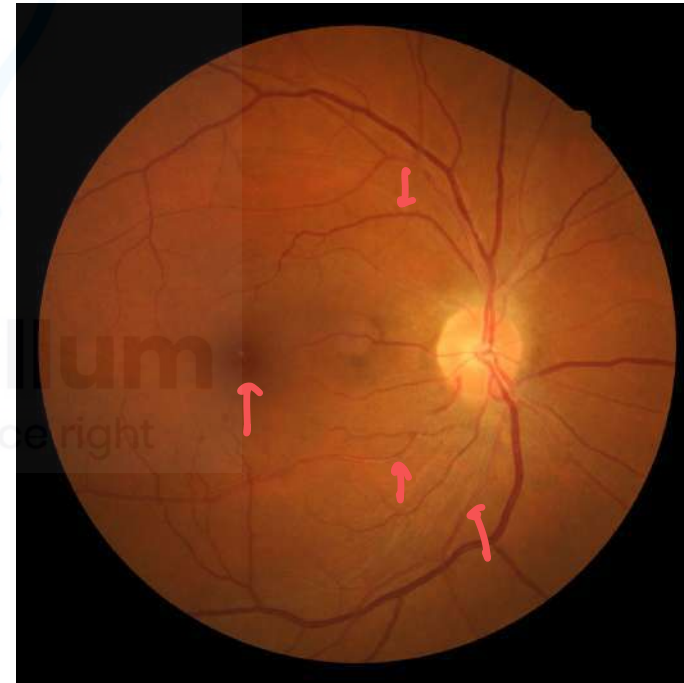
61. 62-year-old man with a history of poor medical follow-up comes to the office due to difficulty seeing. He has had blurry vision for the last 2 weeks. A day ago, he noticed a shadow develop suddenly across the visual field of his right eye. Visual field testing by confrontation reveals patchy loss of vision. Fundusoscopic examination is shown in the image below. Which of the following is the most likely cause of his visual disturbance?

A. Central retinal artery occlusion ~~XX~~

B. Closed-angle glaucoma ~~X~~

C. Giant cell arteritis ~~X~~

~~D. Hypertension~~



62. Which of the following is not a type of subcortical dementia?

~~A.~~ Pick's disease - Frontotemp

B. Parkinson's disease - BG / SN

C. Huntington's disease - candate

D. Wilson's disease - midbrain

63. 64-year-old man comes to the emergency department due to **painless loss of vision** in the right eye. The patient's symptoms started suddenly several hours ago and **have persisted**. He has a history of coronary artery disease, atrial fibrillation, and type 2 diabetes mellitus. Visual acuity in the right eye is hand motion only and normal in the left eye. Funduscopic examination of the right eye is shown in the image below. Which of the following is the most likely cause of this patient's loss of vision?

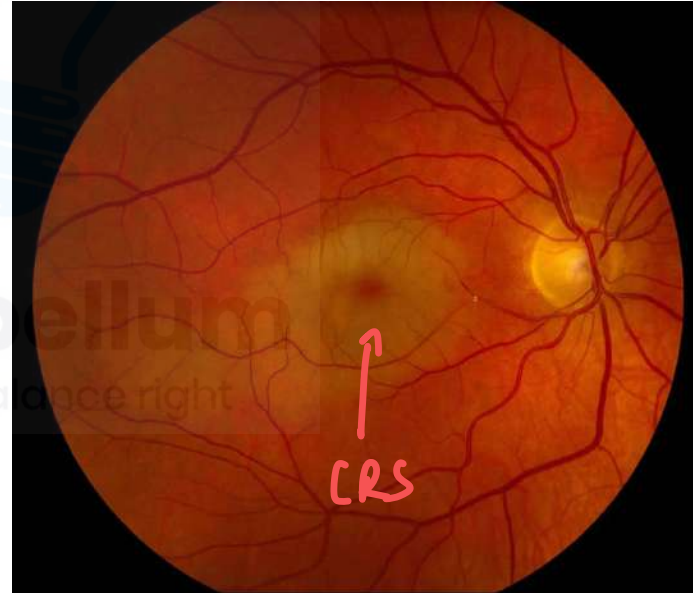
A. Amaurosis fugax

transient

B. Diabetic retinopathy

C. Retinal artery occlusion

D. Temporal lobe stroke



64. A 5-year-old boy is brought to the clinic due to persistent ear discharge. The patient began to have purulent right ear drainage a month ago. Topical antibiotic drops and oral antibiotics have not improved his symptoms. He has had no fever, ear pain, dizziness, or tinnitus. The patient was born with a cleft palate that was repaired in infancy. Due to bilateral persistent middle ear effusions, tympanostomy tubes were also placed. Three years ago, the tympanostomy tubes were removed, after which audiometry was normal. There is scant, yellow, malodorous discharge in the right ear canal. The right tympanic membrane (TM) is immobile with insufflation and appears intact. There is retraction of the superior portion of the TM and a pearly white mass is seen. Which of the following is most likely responsible for this patient's presentation?

A. Acute middle ear effusion with concurrent tympanic membrane inflammation

B. Chronic foreign body impaction with external ear canal abrasion

C. External ear canal epithelial maceration and inflammation

~~D. Tympanic membrane epithelium and keratin debris accumulation~~ *Cholesteatoma*

65. 31-year-old woman is brought to the emergency department by her boyfriend due to confusion. The boyfriend says that the patient "seemed okay" when he left for work this morning, but when he returned in the evening, she was disoriented and "acting like a drunk person"; she had also vomited "all over the bathroom." She has a history of bipolar disorder. Medications include clonazepam, lithium, and quetiapine. Temperature is 37 C (98.6 F), blood pressure is 110/68 mm Hg, pulse is 92/min, and respirations are 16/min. On physical examination, the patient is somnolent and has frequent fasciculations. Pupils are equal and reactive. During evaluation, she has a brief episode of a generalized tonic-clonic seizure. Laboratory results are as follows

Hemoglobin: 13 g/dL

Leukocytes: 9,000/mm³

Sodium: 136 mEq/L

Potassium: 3.8 mEq/L

Bicarbonate: 28 mEq/L

Creatinine: 1.2 mg/dL

Glucose: 120 mg/dL

Serum lithium: 2.8 mEq/L

GTCs / ataxia / vomiting
Symptoms

0.8 - 1.2 > 1.5

In addition to supportive measures, which of the following is the best next step in management of this patient?

A. Activated charcoal ~~X~~

B. Calcium gluconate ~~X~~

C. Gastric lavage ~~X~~

D. Hemodialysis

symptoms Hemo dialysis > 4 + asymptomatic

~~E. wait & watch~~

66. Which among the following is not used in post laryngectomy rehabilitation?

A. Tracheo- esophageal prosthesis

B. Esophageal speech

C. Polite yawning

D. Super supraglottic swallow



Super supraglottic swallow is not used in post laryngectomy rehabilitation but in dysphagia to prevent aspiration of food. To perform this technique, patients are directed to take a deep breath and tightly hold it while bearing down. They should maintain this breath hold and bear down as they swallow. Immediately after the swallow (before inhaling), they are instructed to cough, followed by a forceful swallow once more (before inhaling). This sequence is aimed at enhancing airway protection during swallowing.

✓ A tracheoesophageal prosthesis (TEP) is a one-way valve inserted through a tracheoesophageal puncture. Occlusion of the stoma shunts the exhaled air through the TEP into the esophagus producing vibration of the upper esophageal sphincter resulting in phonation.



✓ Esophageal speech is phonation produced by vibration of the upper esophageal sphincter.

✓ Polite yawning also called nasal airflow-inducing maneuver is indicated for olfaction rehabilitation post laryngectomy. This maneuver induces a negative pressure in the oral cavity and oropharynx, which generates a nasal airflow, enabling odorous substances to reach the olfactory epithelium again.

67. Identify the incorrect pair:

A. Marcus Gunn pupil: POAG

Fundus / OD / OM

0.125% pilocarpine
↓ (XX)
vs Pharmacology

B. Adie tonic pupil : postganglionic parasympathetic pupillomotor damage

~~C. Argyll Robertson pupils: LR present, accommodation reflex absent~~
XX

D. Hutchinson's pupil: compression of oculomotor nerve

68. Which of the following is not a good prognostic factor in schizophrenia?

A. Positive symptoms

B. Late age of onset

C. Insidious onset of symptoms

D. Associated with depression



Cerebellum
Get the balance right

GOOD PROGNOSTIC FACTORS

Acute onset ~~or~~ abrupt onset

Advanced age at onset (>35 yrs)

Catatonic, paranoid subtype

Female sex

Prominent ~~positive~~ symptoms

Presence of affective ~~symptoms~~

Family history of mood disorders

BAD PROGNOSTIC FACTORS

Insidious onset

Early onset (<20 yrs)

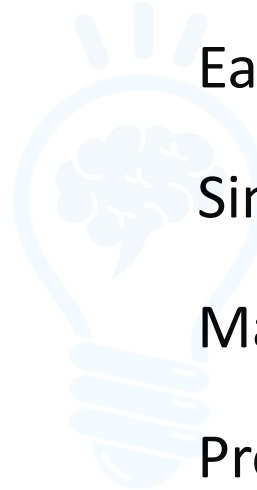
Simple, disorganised, hebephrenic

Male sex

Prominent negative symptoms

Absence of affective symptoms

Family history of schizophrenia



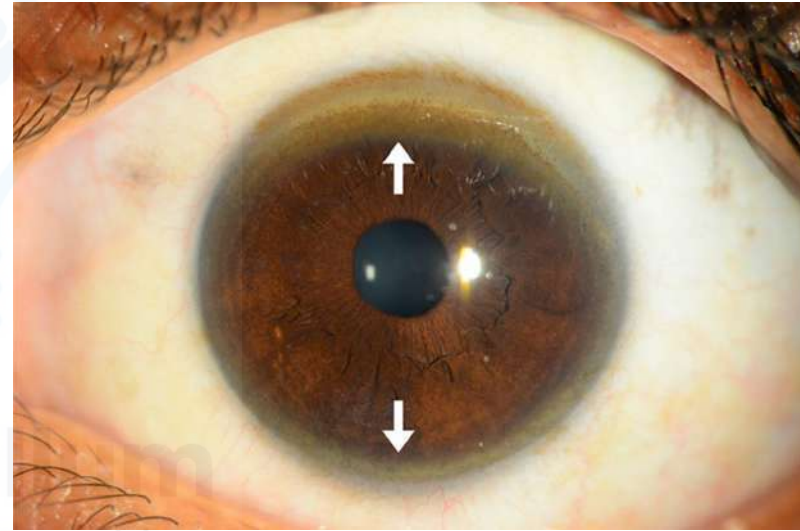
69. Physical examination of a 23-year-old man diagnosed with chronic hepatitis shows corneal changes that are visible to the naked eye, as shown in the image below. This patient is most likely to have which of the following conditions?

A. Pulmonary emphysema

B. Diabetes mellitus

C. Basal ganglia atrophy

D. Hypertrophic cardiomyopathy



Cerebe
Get the balance right

70. 16-year-old boy comes to the emergency department due to sore throat and fever. He started having a mild sore throat after returning from summer camp about a week ago, and it has worsened in the last 2 days. The patient also has right neck pain and earache but no cough or shortness of breath. Enlarged and tender cervical lymph nodes are present. The patient is not able to fully open his mouth, but examination of the oral cavity shows pooling of saliva, a large right tonsil with swelling of the right soft palate, and deviation of the uvula to the left. A rapid test for Streptococcus pyogenes is negative. Which of the following is the most likely diagnosis?

A. Acute tonsillitis ~~XX~~

B. Herpangina ~~XX~~

C. Parapharyngeal abscess →

(+) neck swelling

D. Peritonsillar abscess

Cerebellum
Get the balance right

71. 58-year-old woman brings her elderly father to the office for a checkup. He has multiple medical issues, including diabetes, chronic pulmonary disease, and urinary incontinence. While the physician is seeing her father, the woman confides to the office receptionist that she reluctantly quit her job after her father moved in with her. He is no longer able to live independently, and she resents having to care for him. The father was mostly absent during the daughter's childhood due to business travel, and he divorced her mother when the daughter was 13 years old, with only sporadic contact with his children afterward. She also wishes her siblings would help care for him more. When her father comes out of the examination room, the daughter is extremely attentive to him, asking if the visit went okay and if he is comfortable and repeatedly offering to get him a drink of water before they return home. Which of the following defense mechanisms best explains this woman's behavior toward her father?

A. Altruism = 'Being Human'

B. Displacement

C. Projection 

D. Reaction formation 



72. 3-year-old boy is brought to the office due to nasal discharge for the past 2 weeks. His mother reports whitish nasal discharge that has become progressively thicker and more malodorous. The patient has had no fever, cough, or shortness of breath. Medical history includes congenitally acquired HIV, and the patient has taken antiretroviral therapy since birth. Three months ago, CD4 cell count was $520/\text{mm}^3$. He has received all age-appropriate vaccinations. There is purulent drainage from the right nostril, and the right nasal mucosa and turbinates are erythematous and swollen. There is no discharge from the left side, and the left turbinates are pink and nonedematous. The oropharynx and tonsils are normal. There is no cervical lymphadenopathy. Which of the following is the most likely cause of this patient's current symptoms?

A. Acute bacterial sinusitis X

B. Allergic rhinosinusitis X

C. Frontal sinus agenesis ✓

D. Intranasal foreign body

73. An 65-year-old woman comes to the emergency department due to worsening eye pain. The patient noticed a rash around the left eye yesterday and, this morning, began experiencing left eye pain, redness, and decreased vision. Physical examination shows scattered vesicles on the left side of the forehead and nose and on the left upper and lower eyelids. Left eye examination shows conjunctival erythema, and fluorescein staining demonstrates linear, branching ulcerations on the cornea. Which of the following pathogens is most likely responsible for this patient's current condition?

A. Adenovirus

B. Candida albicans

C. Herpes simplex virus

D. Varicella-zoster virus

HZO

rash + keratitis

VI

74. 46-year-old man is hospitalized due to suicidal ideation and hearing voices. The patient has become increasingly depressed over the past month and has been unable to work. Last week he told his wife that he was "tormented by voices" and that "death would be a relief." She brought him to the hospital after she found him staring at a blank screen on the television and not responding to her questions. The patient was prescribed risperidone, lithium, and escitalopram by his psychiatrist, but his wife is unsure if he takes them regularly. He has a history of bipolar disorder since age 18 with multiple hospitalizations for both manic and depressive episodes. Temperature is 37 C (98.6 F), blood pressure is 125/80 mm Hg pulse is 68/min, and respirations are 12/min. Routine laboratory results are within normal limits, lithium level is within therapeutic range, and a toxicology screen is negative. During the evaluation, the patient stares blankly and is mute and motionless. He resists all instructions to move. When the physician lifts the patient's arm, it remains in the exact same position after she lets go. Which of the following is the most appropriate next step in management?

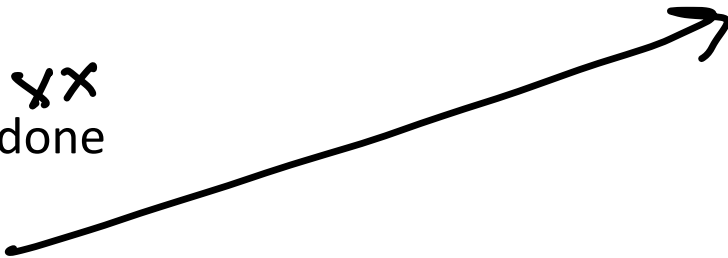
A. ~~Benztropine~~

B. Clozapine

C. Increase risperidone

~~D. Lorazepam~~

Calalonia



Catatonia	
Clinical features	<ul style="list-style-type: none">• Immobility or excessive purposeless activity• Mutism, stupor (decreased alertness & response to stimuli)• Negativism (resistance to instructions & movement)• Posturing (assuming positions against gravity)• Waxy flexibility (initial resistance, then maintenance of new posture)• Echolalia, echopraxia (mimicking speech & movements)

Cerebellum
Get the balance right

75. All of the following are major diagnostic criteria for allergic fungal sinusitis except?

- A. Presence of nasal polyps
- B. Eosinophilic mucin without invasion
- C. Characteristic CT findings
- D. Positive fungal culture



Cerebellum
Get the balance right

Major

Minor

Type I hypersensitivity

Nasal polyposis

Characteristic CT findings

Eosinophilic mucin without invasion

Positive fungal stain

Asthma

Unilateral disease

Bone erosion

Fungal cultures

Charcot-Leyden crystals

Serum eosinophilia

76. A patient presents with left-sided head tilt which on straightening leads to right hypotropia. This increases on extroversion and right head tilt. Paralysis of which of the following muscles is involved?

A. ~~Right superior oblique~~

B. Right superior rectus

C. ~~Right inferior oblique~~

D. ~~Left inferior oblique~~

i/c gaze if
140
c/l gaze
1 TO
i/l tilt - oblique



77. Which of the following features differentiate delirium from dementia in Alzheimer's disease?

A. Acuity of onset and agitation

B. Acuity of onset and loss of consciousness

C. Visual hallucinations and impaired memory

D. Agitation and irritation

78. 62-year-old woman comes to the emergency department due to acute eye pain. She has a history of seasonal allergies and developed itchy, watery, red eyes after working outdoors in her garden. The patient used over-the-counter eye drops to treat her allergy symptoms, and several hours later, she began experiencing severe right eye pain and headache. On examination, the right eye appears red with a hazy cornea and dilated pupil that responds poorly to light. Palpation of the globes reveals notable firmness on the right compared to the left. Visual acuity in the affected eye is severely diminished. Which of the following medications was most likely used by this patient?

A. Alpha-adrenergic agonist

B. Beta blocker ✗

C. Mast cell stabilizer ✗

D. Nonsteroidal anti-inflammatory drug ↗

ACG

hydriasis



79. 52-year-old man comes to the OPD for evaluation of hearing loss in the left ear. The patient works in sales and is frequently on the phone. Over the past several months, he has had difficulty hearing phone conversations in the left ear and must move the headset to the right. He has no pain or vertigo but sometimes feels off-balance when walking at night and holds onto walls. A tuning fork placed on the forehead is lateralised to the right ear. Air conduction is greater than bone conduction bilaterally. There is decreased sensation to touch on the left side of the face. Which of the following is the most likely cause of this patient's symptoms?

- A. Cholesteatoma ✗
- B. Herpes zoster oticus ✗
- C. Ménière disease ✗

D. Vestibular schwannoma

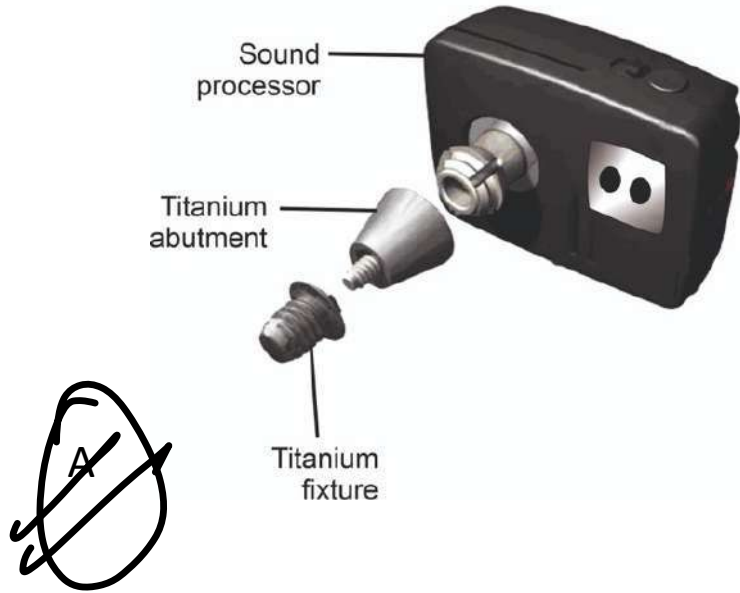
Lt SNHL
Lt - (V/VII) m



80. 15-year-old girl is brought to the office by her mother for evaluation of moodiness and behavioural concerns over the past year. Her mother says, "She always stays out late. I've already tried grounding her, but she doesn't seem to care. When I ask her to do household chores, she gets extremely annoyed and slams her bedroom door in my face." The patient is failing multiple classes at school and blames her grades on "boring teachers" and being unfairly penalized for handing in assignments late. A few months ago, the patient was sent to the principal's office after refusing to put away her cell phone during a test. When the principal said her phone would be confiscated, she started arguing and impulsively cursed at him, resulting in suspension from school. On mental status examination, the patient is irritable and sarcastic, frequently interrupting when her mother is speaking. Which of the following is the most likely diagnosis?

- A. Conduct disorder ← setting fire / destroying property / physical violence
- B. Intermittent explosive disorder x x
- C. Normal adolescent behaviour x/
- D. Oppositional defiant disorder

81. Which of the following devices can be used for managing a patient with B/L external auditory canal atresia?

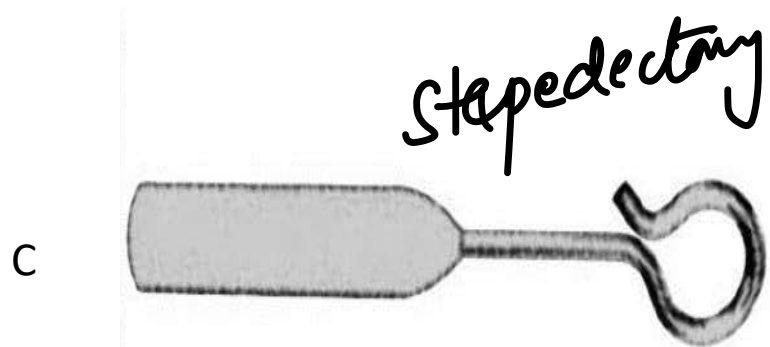


~~A~~



B

Cochlear implant



C

Cerebellum
Get the balance right



D

TORP
PORP
MI
ossicle reconstruction prosthesis

82. Which of the following procedure is shown in the image given below?

A. Nasolacrimal duct syringing

~~B.~~ Anterior ethmoidal nerve block

C. Infraorbital nerve block

D. Trephination of frontal sinus



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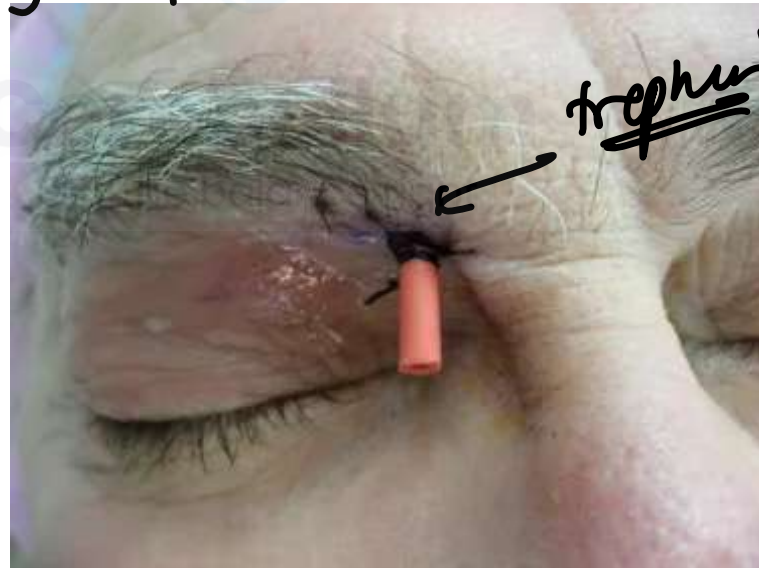




NLB syringing & probing



infraorbital n block



trephine

83. 34-year-old woman comes to the emergency department due to sudden onset of tingling and numbness in her left hand. She is an assistant chef at a nearby restaurant and was lifting a box earlier in the day when she heard a "pop" and her left hand went numb. Her fingers, entire left hand, and wrist are numb, with normal sensation above her wrist. The patient describes her numbness as feeling like "pins and needles". Medical history is insignificant. The patient allows the nurse to take her vital signs but refuses any further physical examination, insisting that it will worsen her discomfort. The patient asks for a doctor's note to excuse her from work, fearing that her condition will worsen if she does not take some time off to heal. Which of the following is the most likely diagnosis?

A. Conversion disorder *xx stress*

B. Factitious disorder *xx*

~~C. Malingering~~

D. Mononeuropathy *xx*

2° gain

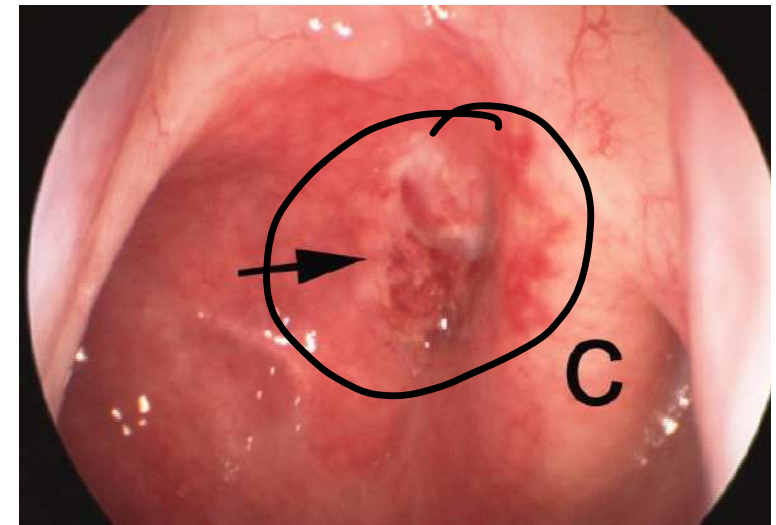
84. 64-year-old man comes to the office due to a month of slowly progressive left-sided neck swelling. He has also had persistent nasal congestion, frequent epistaxis, and headaches. The patient has a history of rhinosinusitis and attributes his current symptoms to another episode of infection. Nasopharyngoscopy findings are shown. Which of the following is most strongly associated with this patient's current condition?

A. Aflatoxin B exposure

B. Epstein-Barr virus infection

C. Excessive use of nonsteroidal anti-inflammatory drugs

D. Recurrent bacterial sinusitis



NP ca

85. Which sequence of dyes is employed for ocular surface examination and dry eye staining?

A. Fluorescein → Rose Bengal → Lissamine green

B. Rose Bengal → Lissamine green → Fluorescein

C. Lissamine green → Rose Bengal → Fluorescein

~~D. Fluorescein → Lissamine green → Rose Bengal~~

1st

itzhy

85. Which sequence of dyes is employed for ocular surface examination and dry eye staining?

A. Fluorescein → Rose Bengal → Lissamine green

B. Rose Bengal → Lissamine green → Fluorescein

C. Lissamine green → Rose Bengal → Fluorescein

D. Fluorescein → Lissamine green → Rose Bengal

86. You are attending physiology viva. The examiner asks you who recorded the first EEG. You say "I don't know "The examiner feels bad for you and gives you a clue that "the name sounds like something you get commonly in McDonalds". You remember the name and answer correctly. What type of memory has been implicated here?"

A. ~~Semantic~~ memory

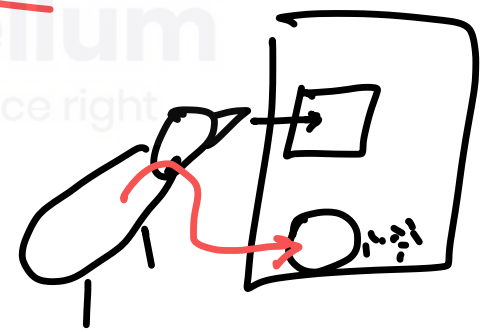
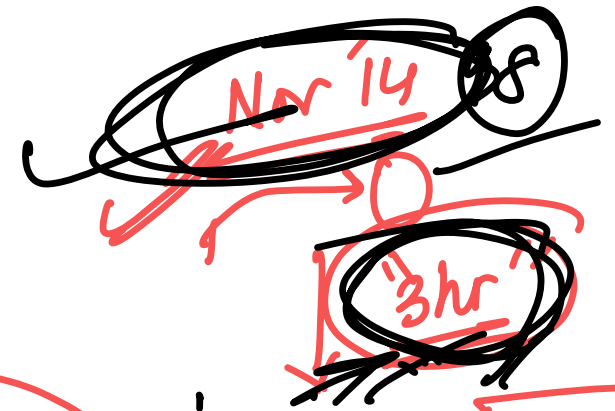
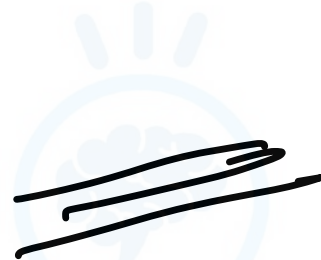
B. ~~Implicit~~ memory

C. Associative learning

~~D. Priming~~

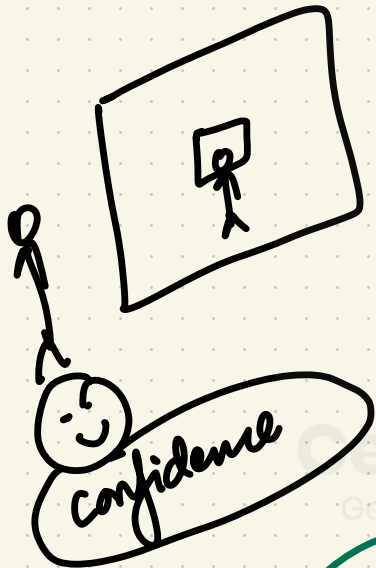
- conditioning / trial & error

Hint



Cerebellum
Get the balance right

~~CFR~~
Paper commit
3 hrs.



~~120~~

200
~~a)~~
~~b)~~
~~c)~~
d)

87. 64-year-old woman is brought to the clinic by her husband due to a fall. She was walking in her living room when she tripped over an electrical cord. The patient has had several other ground-level falls in the last 6 months but has had no significant injuries. She also gave up driving a year ago following a near-miss motor vehicle accident. Ophthalmic examination reveals reduced vision in her peripheral visual fields bilaterally and an elevated intraocular pressure. After discussion of treatment options, the patient is initiated on timolol ophthalmic drops. Which of the following structures is the most likely target of this medication?

↓ aq humor

~~A. Ciliary epithelium~~

B. Ciliary muscle

C. Pupil sphincter

D. Trabecular meshwork

88. 68-year-old woman comes to the office due to oral pain. For the last 3 days, she has had mild pain in the left lower jaw associated with swelling of the gums. The patient had a loose molar extracted 3 weeks ago and the extraction site never completely healed. Medical history is notable for osteoporosis treated with calcium, vitamin D, and zoledronic acid. She has never used tobacco or alcohol. Vital signs are normal. Examination shows gingival edema and erythema surrounding an area of exposed bone at the left lower jaw. Which of the following is the most likely diagnosis?

- A. Malignancy
- B. Herpetic stomatitis
- C. Mucormycosis
- D. Osteonecrosis

89. 55-year-old man is brought to the office due to unusual movements of his face and extremities. He lives in a group home and was noted to be sticking out his tongue, smacking his lips, and twisting his body from side to side actions that were disruptive to the other residents. The patient has a history of schizoaffective disorder that has been treated with risperidone, fluoxetine, and clonazepam for more than 20 years. Examination shows protruding and twisting movements of the tongue, dystonic postures of the neck, and squirming movements of the torso. Which of the following is the most likely underlying cause of this patient's symptoms?

A. Dopamine receptor downregulation

~~B. Dopamine receptor super sensitivity~~

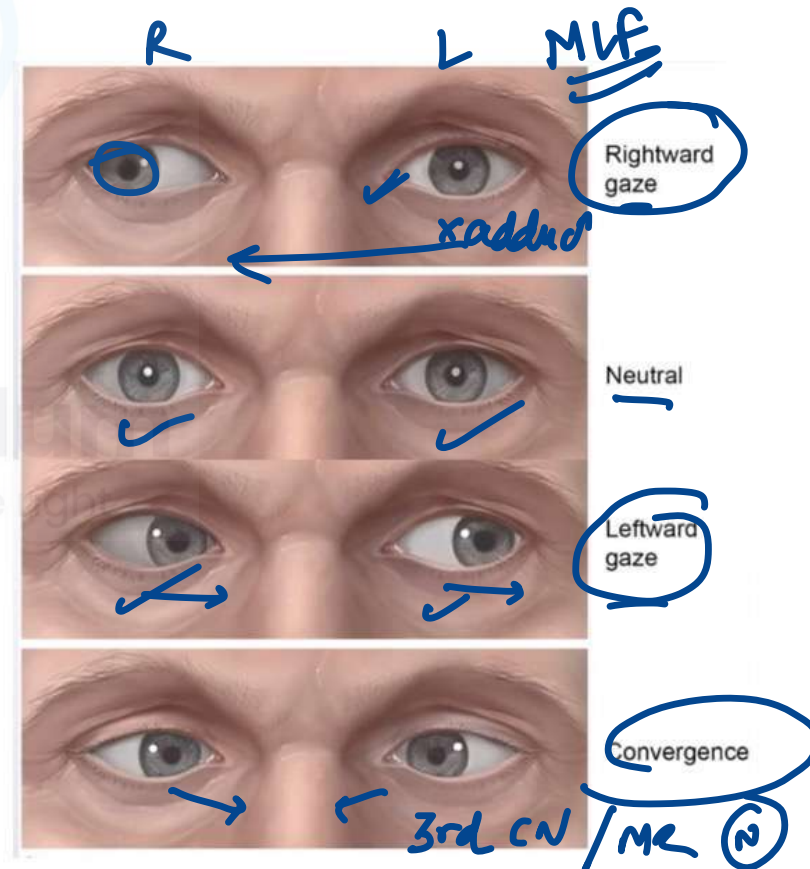
C. GABA receptor upregulation

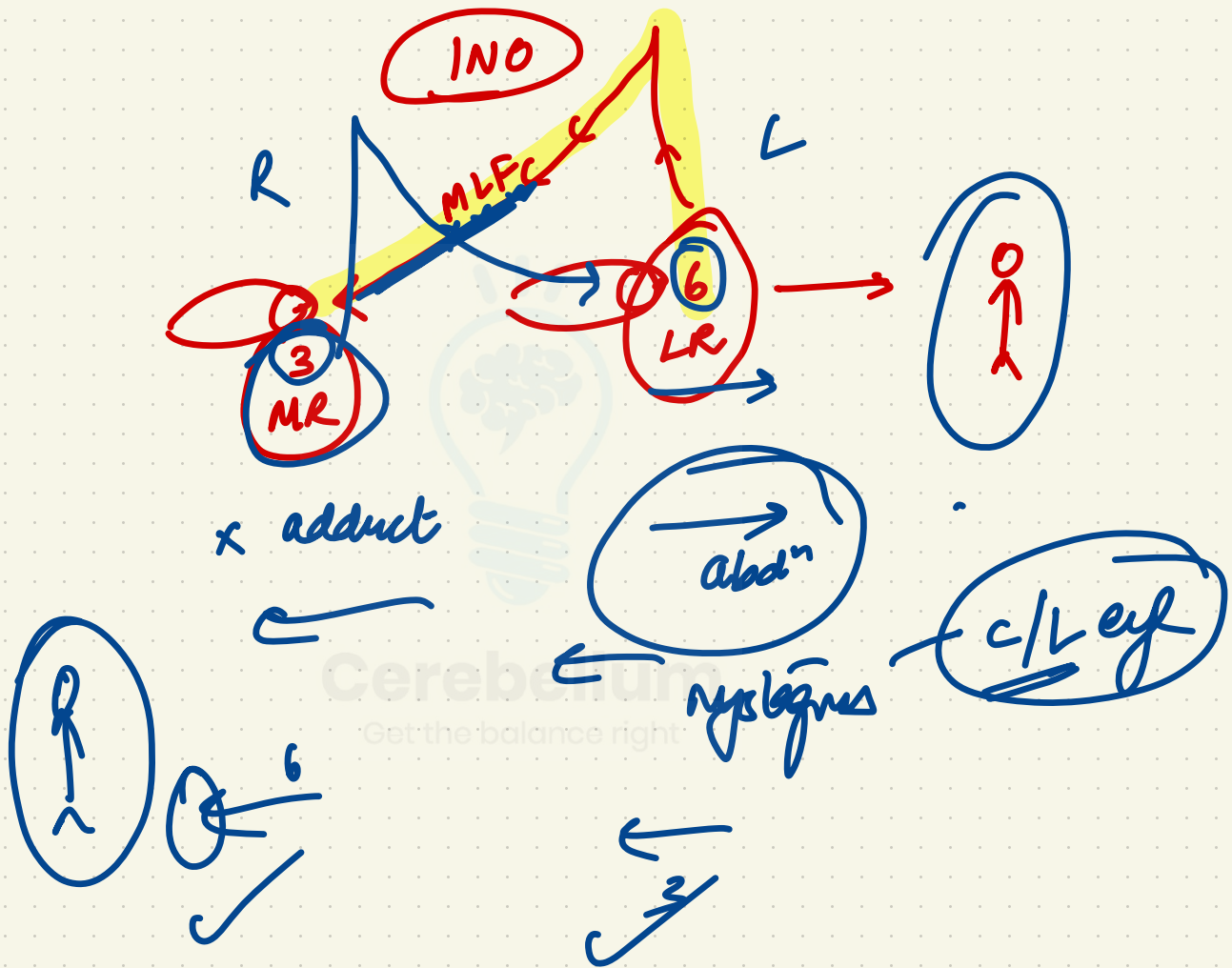
D. Glutamate receptor super sensitivity

Tardive dyskinesia

90. 38-year-old woman comes to the emergency department due to sudden-onset double vision that started immediately after she woke up. The patient notices that her vision worsens when looking to the right. She has no headache, weakness, or numbness. Neurologic examination, including visual acuity, is normal with the exception of the ocular findings shown in the image below. A lesion involving which of the following structures is most likely causing the observed ocular findings in this patient?

- A. Abducens nerve
- B. Lateral geniculate nucleus
- C. Medial longitudinal fasciculus
- D. Occipital lobe





91. What are the objective tests used to assess hearing?

1. BERA (Brainstem evoked response audiometry) ✓
2. OAE (Otoacoustic emission) ✓
3. PTA (Pure tone audiometry) ✗✗
4. Tympanometry ✓

~~A. 1, 2, and 4~~

B. 1,2, and 3

C. 2, 3, and 4

D. 1, 2, 3, and 4



Cerebellum
Get the balance right

92. 38-year-old woman is brought to the emergency department by her sister after developing acute anxiety, headache, nausea, and vomiting while eating dinner. She has no known food allergies but does have a history of seasonal allergies treated with diphenhydramine. The patient has a long history of major depressive disorder and panic attacks and has had poor response to several antidepressants. For the past year, she has been treated with escitalopram, which she discontinued a week ago. Yesterday, she started taking phenelzine for depressive symptoms. On arrival, the patient is agitated, disoriented, diaphoretic, and tremulous. Temperature is 38.9 C (102 F), blood pressure is 170/110 mm Hg, pulse is 115/min, and respirations are 24/min. Physical examination shows dilated pupils and bilateral tremors. Deep tendon reflexes are 3+ bilaterally. Which of the following is the most likely cause of these findings in this patient?

- A. Anticholinergic toxicity
- B. Malignant hyperthermia
- ~~C. Serotonin syndrome~~
- D. Tyramine-induced hypertensive crisis



93. 43-year-old man is found wandering in the street in winter and is brought to the emergency department by a passing motorist. The patient is confused and unable to provide any history. He has no previous hospital records. The patient appears disheveled and lethargic but follows commands. The oral mucosa is moist, and there are extensive dental caries. The patient has no cervical lymphadenopathy, but there is bilateral, nontender swelling of the cheeks consistent with salivary gland enlargement. Which of the following is the most likely cause of this latter finding?

~~A. Alcoholism~~

siadenitis

malnutrition / bulimia

B. Mumps *x tender*

C. Pleomorphic adenoma

v/L

D. Salivary gland stone

v/L or b/L

- ↑ E eating

Cerebellum
Get the balance right

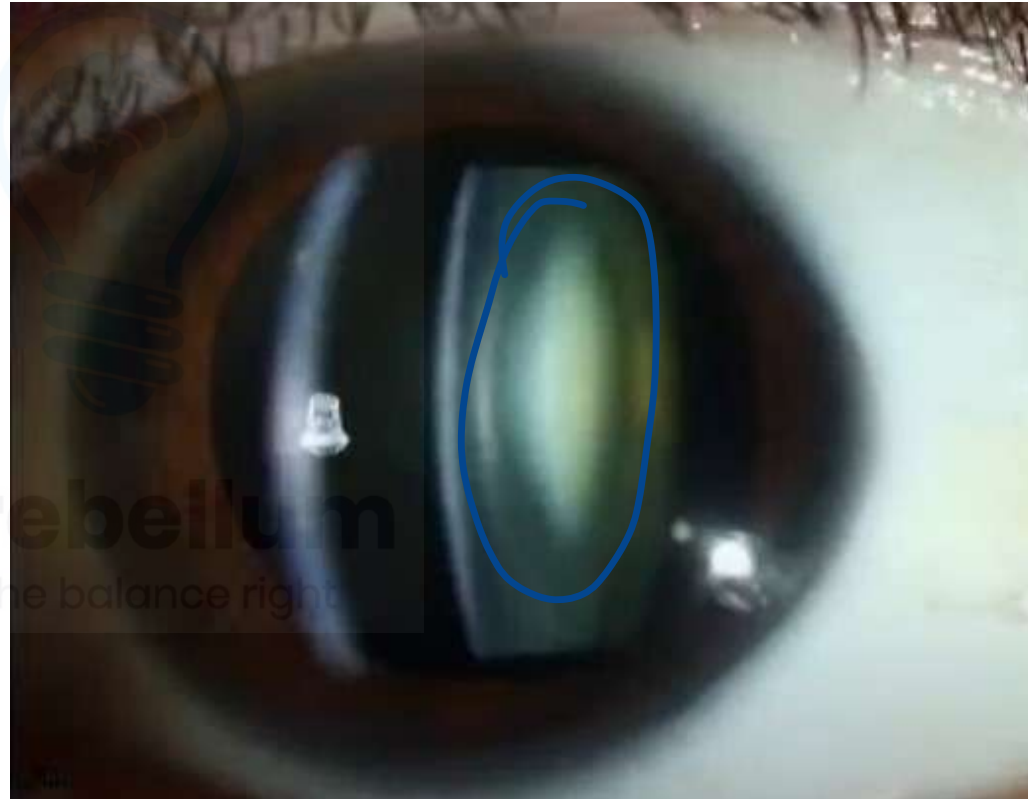
94. A 60-year-old patient complains of decreased distant vision but he does not use spectacles for near vision. The image of his ocular examination is given below. What is this type of refractive error called?

A. Index myopia

B. Axial myopia

C. Curvatural myopia

D. Positional myopia



95. Identify the incorrect option:

A. Disorder of thought possession-Obsession

B. Disorder of thought content-Delusion

~~C. Disorder of thought formation-Hallucination~~

percept is

D. Disorder of thought stream-Circumstantiality

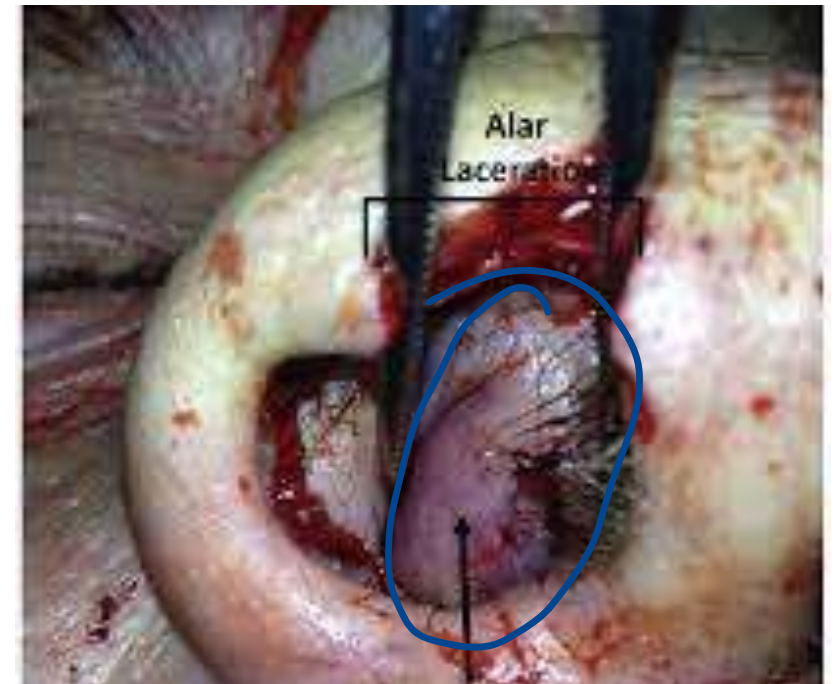
96. A 22-year-old man comes to the urgent care clinic after being hit in the face with a basketball. He is currently unable to breathe through his nose. Oxygen saturation is 99% on room air. Examination is shown. Which of the following is the best next step in management of this patient?

A. Apply ice packs to the nose and recommend NSAIDs

B. Embolize the sphenopalatine artery

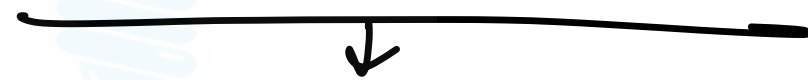
C. Incise and drain the nasal septum

D. Insert anterior nasal packing



97. Identify the incorrect statements:

1. Richardson and Koeppe are direct gonioscopes. (T)
2. Narrowing of isopters and the appearance of a blockage within the blind spot are early changes in ~~MS~~ glaucoma. (F)
3. Most common ocular manifestation of COVID-19 is ~~papillary~~ Follicular conjunctivitis. (F)
4. The Haigis-L regression formula is used for lens power calculation in patients undergoing cataract surgery with a past history of LASIK for myopia. (T)
5. Correct method is to put the eye ointment first, drops 15 min later. (F)



A. 1, 2, 3, 4, 5

B. 2, 3, 4

C. 1, 3, 5

~~D. 2, 3, 5~~

Cerebellum
Get the balance right

98. 17-year-old boy is brought to the emergency department by his parents due to a recent change in behavior. The patient was previously polite and soft-spoken, but he has become intermittently irritable, impatient, and rude over the past few weeks. His parents initially dismissed his new behavior as a "phase", however, they grew more concerned last night when they discovered that he had stolen money from their wallets and later found him pacing in his room at 4:00 AM. When questioned by his father about his strange behavior, the patient said, "I have to be careful because I'm being followed by CIA agents." Temperature is 36.6 C (97.9 F), blood pressure is 164/98 mm Hg, pulse is 124/min, and respirations are 18/min. On physical examination, the patient appears fearful. He is sweating profusely and his pupils are dilated. Which of the following is the most likely diagnosis for this patient?

A. Amphetamine intoxication

B. Anticholinergic poisoning X

C. Opioid withdrawal X

D. Cannabis intoxication →

Sympathetic

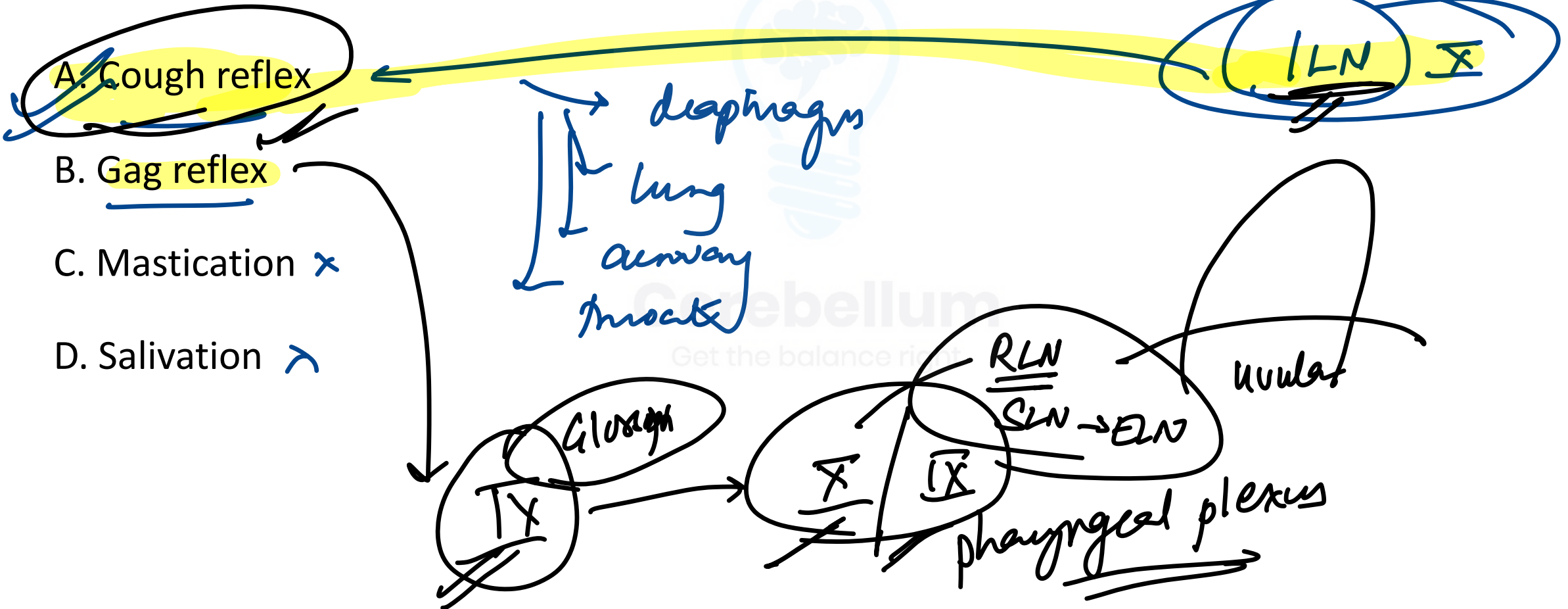
paranoid delusion

cough symp
pseudophesure

none tox

amphetamine
→ Yce (+)

99. 23-year-old comes to the ED with the feeling of food being stuck in the throat. Laryngoscopy reveals fish bone lodged in the left piriform recess. During retrieval of the fish bone, a nerve deep to the mucosa overlying the recess is damaged. Which of the following is most likely to be impaired in this patient as a result of his iatrogenic injury?



A. Cough reflex

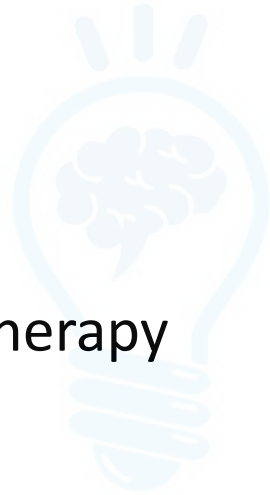
B. Gag reflex

C. Mastication ~~x~~

D. Salivation ~~>~~

100. A husband and wife presented to the OPD with complaints of premature ejaculation during intercourse. What is the non-pharmacological technique you will advise to the patient?

- A. Cognitive behavioral therapy
- B. Exposure and response prevention therapy
- C. Squeeze technique
- D. Sensate focus therapy



Cerebellum
Get the balance right

A lightbulb icon with a brain inside, symbolizing an idea or thought.

Thank you!

Cerebellum
Get the balance right