PHARMACOLOGY REVIEW

Dentellele Tutoring
ANTINEOPLASTICS

1. What are antineoplastic agents?
   - To treat malignancies, psoriasis, rheumatoid arthritis and systemic lupus erythematosus

2. What is produced by moldy peanuts?
   - A carcinogenic substance called aflatoxins

3. Clients with hepatitis have an increased risk of what?
   - Liver cancer

4. When antineoplastic agents are not enough, what is used next?
   - Radiation and surgery

5. Is the goal to treat cancer aggressively or slowly to prevent additional harm?
   - To treat it very aggressively

6. Discuss cell-cycle specific and cell-cycle non-specific?
   - Drugs that are classified as working only at a particular phases in cellular growth

7. What is acquired resistance?
   - Is under natural occurrences or through mutation

8. What are antimetabolites?
   - They attack cell when they are in the DNA synthesis stage

9. Can estrogens be used to help prevent breast cancer?
   - Yes

10. What are some examples of faster growing, normal cells that are easily destroyed?
    - Neoplastic cells

11. With a cancer-client when is the best time to perform treatment and why?
    - Appointments need to be planned when the client has the highest level of formed blood elements, before treatment or during the lag period. Treatment after drug therapy is avoided, WBC’s are low, higher risk of infection

12. What is agranulocytosis?
    - When the white blood cell count is too low

13. Describe bisphosphonates - and is a drug free period recommended?
    - Originally used for bone metabolism disorders, and is now what inhibits osteoclastic activity and the resorption of bone
    - No it is not recommended, the drug stays in the bone for years - **PERFECT, I WANTED TO MAKE SURE YOU KNEW THE DRUG STAYS IN THE BONE FOR YEARS :)**

14. Can excellent OH help prevent osteonecrosis?
    - It can decrease chances but doesn’t prevent it
HORMONES
1. What secretes hormones and where are they transported?
   - secreted by endocrine glands and transported by blood to target organ
2. What common drug is used to treat hypothyroidism?
   - levothyroxine (synthroid)
3. What is known as the master gland?
   - pituitary gland
4. What is it called when you have hypothyroidism in a child and in an adult?
   - child = cretinism, adult = myxedema
5. Hypothyroid pregnant women give birth to children with smaller or larger teeth?
   - large teeth
6. List the two types of hypothyroidism and the differences
   - Primary: thyroid can’t produce the hormones that the pituitary requires
   - Secondary: thyroid isn’t being stimulated by pituitary in producing hormones
7. What is Graves' Disease?
   - is an immune system disorder caused by an enlarged vascular thyroid gland
8. What is Hashimotos' Disease?
   - is a chronic inflammation of the thyroid, commonly seen in middle-aged women and associated with an autoimmune disease
9. Can you use epi with hypothyroidism?
   - it is contraindicated, only can be used at a cardiac level
10. Discuss insulin
    - insulin is a hormone secreted by the pancreas and promotes fuel storage, takes glucose out of blood for energy
11. Discuss glucagon
    - is another hormone secreted by the pancreas – and gets glucose into blood
12. Discuss all types of diabetes
    - Type 1 – is insulin depended occurs in the younger population, there is no insulin in the body
    - Type 2 – non-insulin dependent, pancreas makes insulin although not enough to stabilize the plasma glucose
    - Type 3 – is triggered by medication
13. What is retinopathy?
   - Blindness and one of the major causes of diabetes - **EXCELLENT :)**, **THIS WAS ON THE LAST EXAM**

14. What is serum glucose?
   - Is the blood glucose level when measured

15. If a client is now unconscious (suffering from hypoglycemia) what do you do?
   - Administered IV but in this case a sugar source (icing sugar), client needs to be taken to the emergency

16. What is used as the ‘morning-after’ pill?
   - 2 tabs of norgestrel

17. If a client is taking birth control pills, what kinds of things do you make them aware of?
   - Increase risk of gingivitis and gingival fluid
   - Reason to believe that antibiotics reduce the effectiveness of BC
     - **ALSO NOT ON THE PP’S BUT NEWER STUDIES ARE SHOWING SOME ANTIDEPRESSANTS ALTER BCP AS WELL**
STEROIDS

1. Steroids are secreted by what?
   - By the Adrenal cortex

2. Used topically or systemically?
   - in both manners

3. Used chronic or as an acute dose?
   - mostly for chronic use - MORE SO ACUTE ACTUALLY, BUT CAN BE USED BOTH WAYS

4. Discuss hydrocortisone
   - is a type of corticosteroid, used in allergic reaction, anaphylaxis and any adrenal crisis

5. Do side effects occur with low doses?
   - No ? ** GOOD QUESTION, THE SIDE EFFECTS DEPEND ON THE DOSE SO A SMALL DOSE COULD MEAN MINOR SIDE EFFECTS AND A LARGER DOSE COULD MEAN MANY SIDE EFFECTS

6. What is the most common oral corticostroid?
   - Common corticosteroid is prednisone

7. Discuss dental adverse reactions
   - increase risk of infection, delayed wound healing, more stressed during appointment because lack of adrenal steroids, perio disease, inflammation and osteoporosis in bone
AUTACOIDS

1. What are antacoids considered?
   - A self-remedy, produces naturally in the body
2. What is histamine stored in?
   - In mast cells
3. Discuss the steps in what happens when there is an allergic reaction
   - Mast cells degranulate • release histamine & autacoids
4. What are the two types of histamine effects
   - H1 agonist effects – vasodilation, increase capillary permeability, bronchoconstriction, pain or itching in nerve endings
   - H2 – agonist effects – increase gastric acid secretion
5. What does epi do exactly when treating an allergic reaction?
   - Dilate bronchioles
6. If a client has a latex allergy, what time of day is the best to see them?
   - Anytime use latex free products - MORNING IS ALWAYS THE BEST BECAUSE LATEX ISNT AS AIR BOURNE
7. What are some side effects of antihistamines?
   - Xerostomia
8. What is one common antihistamine?
   - Benadryl
9. What do antiemetics do?
   - Controls vomiting, nausea, dizziness
10. Can benadryl be used in sedation?
    - Yes
11. Can some antihistamines be used as a form of local anesthetic?
    - Are not as effective, but can be administered topically or by injection
12. Discuss prostaglandins
    - Relax or contract the GI, causes cramping and contraction of the uterus
    - It stimulates and inhibits platelets
    - Induces labour at full term
    - Increase body temperature
    - Causes pain
13. What is the first stage of this and what is in the second stage?
    - In the first stage tissues become inflamed, change colour and an increase in exudate
    - The second stage resorption of bone and tooth loss also inhibiting new bone to form
14. What do anti-asthmatic medications do specifically? (Leukotrienes)
- They inhibit the leukotrienes to work, so that leukotrienes don’t produce inflammation

15. What is Churg-Strauss Syndrome?
- Is a condition that is brought on due to the use of systemic steroid withdrawal, direct effect of the leukotriene inhibitor, condition is seen in asthmatic and allergic rhinitis patients. This causes inflammation in multiple tissues
PSYCHIATRIC DISORDERS

1. Discuss the three secondary psychiatric disorders?
   - Psychoses, affective disorder, neuroses (anxiety)

2. What is the most common? And, what is the cause?
   - Schizophrenia is the most common and cause is unknown

3. What is unipolar and what is bipolar depression?
   - Unipolar depression is only depression
   - Bipolar is happy and sad moods

4. What is OCD and what category does it fit into?
   - OCD is obsessive compulsive disorder and is apart of anxiety

5. When is ECT used?
   - To treat depression, but only when antidepressants do not work, is fast and effective

6. As a DH, what must you watch for in mentally disturbed clients?
   - Their compliance with their medication
   - The manner in which they behave with the dental hygienist
   - Any suicide attempts

7. What are phenothiazines and when are they used?
   - Antipsychotic medication and are used for outpatient treatment

8. What are extrapyramidal effects?
   - Cause drowsiness, muscle tremors and jaw movements

9. How do anti emetics work? And list some clients that may find a use for them
   - Depress that part in the brain that causes vomiting and nausea, can be used for pregnant women, seasickness and hiccups

10. What can be used to treat hiccups that could also help mentally disturbed clients?
    - Antiemetic agent

11. Sedation - phenothiazines, why are they useful in this sense?
    - Extrapyramidal effects, withdrawal and addictive with other sedatives

12. What is orthostatic hypertension?
    - When client gets up too fast after treatment, slowly raise the chair in this cause to avoid this.

13. What could be used and that works faster then an antidepressant if a client is having severe, suicidal thoughts?
    - ECT

14. What is lithium used to treat?
    - Bipolar depression
EPILEPSY

1. What causes this?
   - Electrical activity in the brain, neurologic function changes

2. What is an aura?
   - A sensation of discomfort of emotions, precursor to having a seizure

3. What are the two major groups of seizures?
   - Generalized and partial

4. If a client needs medication for seizures chronically, can brain surgery be performed?
   - Anticonvulsants are used chronically, no brain surgery

5. Discuss petite mal and grand mal seizures
   - Petit: loss of consciousness but just for a few seconds, little movement, no aura, and recovery quick. Tx: valproic acid
   - Grand mal: unconscious for longer periods, major motor activity, rigid body, falls, urination and apnea/cry, patient becomes limp and comatose, confusion upon return, true aura does not occur. TX: valporic acid, phenytoin, phenobarbital, carbamazepine

6. What are some drugs used to treat epilepsy?
   - Anticonvulsants, carbamazepine, phenytoin, phenobarbital

7. Can a seizure be brought on by a high fever?
   - No IN SOME CASES YES IT CAN - THIS LIKELY WONT BE ON THE TEST BECAUSE THERE ARE DIFFERENT ANSWERS

8. What seizure can last greater than 30 minutes?
   - Status Epilepticus

9. What is the drug Dilantin not useful for?
   - For pure absence seizures

10. If a gingivectomy is performed on someone with gingival overgrowth, is there a risk of it growing back?
    - If continue use of drugs

11. What do you do if a client is having a seizure in the dental office?
    - move patient to floor, tilt head to one side to prevent aspiration, remove objects from mouth, loosen tight clothing, do not use tongue blades or other devices

12. What drug can be used to treat trigeminal neuralgia, and what is this condition?
    - Carbamazepine for atypical facial pain
CARDIOVASCULAR DISEASE

1. What is the leading cause of death?
   - Cardiovascular disease, 25% of the top 200 drugs

2. List some examples of CVD
   - Increase in blood pressure, angina, cerebrovascular accident, congestive heart failure, and high cholesterol

3. What is a common one?
   - Angina

4. What is the cardiac dose of EPI?
   - 0.04 mg WAS ON THE LAST EXAM - RANGE IS 0.02-0.04

5. When might premedication be required?
   - When treating angina clients for anxiety filled dental procedures

6. Discuss the differences between the pacemakers made 20 years ago and the ones they currently make today?
   - Pacemakers made 20 years ago were unshielded, so waves from other sound or other electromagnetic energy devices could interfere while it works

7. Is periodontal disease and CVD co-related?
   - There is reason to believe that the two are related

8. What is CHF?
   - Is congestive heart failure, when the heart is not able to supply the body with enough oxygen

9. If a client is diagnosed with hypertension what are the steps towards treatment?
   - Have the client in a semi-reclined position during treatment

10. What is angina? Can it lead to a heart attack?
    - Is when the heart is not being supplied enough oxygen
    - Yes if not controlled can lead to a heart attack

11. Discuss bradycardia and tachycardia?
    - The heart rhythm is too slow in bradycardia
    - Too fast or rapid in tachycardia

12. What is digoxin?
    - Is used as an antiarrhythmic drug

13. What is NTG?
    - Is nitroglycerine used by angina patients

14. Discuss proper use of NTG in a medical emergency
    - No more than 3 pumps/tabs at 5 mins apart, upright position, if still no effect EMS should be activated

15. How does NTG need to be stored at home?
    - Stored in its original casing and away from heat

16. How many hours daily must the client be NTG free?
    - Should be off of it for 8-12 hours
17. What is nifedipine?
   - is a calcium channel blocking agent – used for hypertension and cardiac constriction, dilation and irregularities
18. What is MI?
   - Myocardial Infraction is also known as a heart attack, it occurs in the angina attack is not relieved by NTG
19. What is malignant hypertension? Common or rare?
   - Malignant hypertension is when BP is very high and is continuing to rise fast.
20. If a client has hypertension, what should you do at each dental visit?
   - BP should be recorded at each dental appointment and if they are using their medication
21. What are the three types of diuretic agents and why are they used?
   - Thiazide diuretics, loop and potassium sparing are used as antihypertensive agents
22. Discuss calcium channel blockers
   - Work by inhibits calcium from entering cells of the heart and blood vessels, which ultimately lowers BP
23. What can Niacin be used for?
   - Niacin is a vitamin that converts food into energy and is used to lower cholesterol
24. Discuss Warfarin and how it applies to dentistry
   - Is an anticoagulant, works by inhibiting clotting factors, thus reducing chances of blood clot formation. Thins blood, so in dentistry its important to know if implementing evasive procedures and know its possible side effects, i.e. if the client bleeds to much.
25. What is hemostasis?
   - Occurs when the body turns blood into a solid state in order to prevent blood loss, thus clots form. It first slows blood flow by contracting the muscle at the site of injury, then platelets build up eventually creating a clot
26. What is INR? What does it stand for? What are the normal levels?
   - INR = International Normalized Ratio – which is the time it takes for blood to clot in the body. Normal levels are between 1-4. **2.5-3.5 is AN ACCEPTABLE RANGE FOR TREATMENT**
LESIONS

1. **What is trench mouth? What is the common bacteria? How do you treat it?**
   - Is also known as ANUG, the bacteria commonly found is spirochetes
   - TX: good OH, scaling, hydrogen peroxide and antibiotics only if immune system is compromised.

2. **Discuss Candidiasis**
   - When there is an overgrowth of Candida Albicans in normal flora its an infectious disease
   - there are 5 different kinds – pseudomembranes, erythematous, chronic atrophic, chronic hyperplastic and mucocutaneous
   - tx: is through antifungal therapy and Nystatin

3. **What is the condition when there are cracks at the corners of the mouth? What clients is this most common?**
   - Angular cheilitis and typically seen with those who have Candidiasis

4. **What is Nystatin used to treat?**
   - Treat Candidasis or Candida bacterial infections

5. **What is caused by a 'dry socket' and how is it treated?**
   - occurs at the site of a tooth extraction, blood clot was not formed after extraction, which causes a lot of pain and exposes the bone
   - can be caused with the added factor of BCP’s and smoking
   - tx: saline rinses, debride, pain killers

6. **Can antibiotics be given in the case of a dry socket?**
   - Antibiotics if an infection is present or likely to occur for that client

7. **What is RAS also known as? And list the three types**
   - recurrent apththous stomatitis
   - major, minor and herpetiforme

8. **Can immunosurpressive be used to treat a canker sore?**
   - only in severe cases

9. **What is Lichen Planus and what are the different types? What is the cause?**
   - is a chronic condition which present its self as a skin condition and oral lesions on mucosa
   - 3 types: erosives, striated and plaquelike
   - unknown cause, possibly a viral infection, auntoimmune disease or hypersensitivity reaction

10. **If a client has psoriasis, what is a common finding in the mouth?**
    - Geographic tongue, red lesion so the dorsal surface of the tongue, appear as red lesions with white center

11. **Where is pericornitis found?**
    - Is the inflammation around the crown of a unerupted tooth and commonly found in the partially erupted third molars
12. What is the best way to treat sensitivity from recession?
   - Desensitizing toothpastes, sodium fluoride, stannous fluoride

13. What is 5-FU used for?
   - Antineoplastic agent used in actinic cheilitis

14. What is pilocarpine?
   - Increases saliva production

15. What are the three drug-types that cause gingival enlargement?
   - Calcium channel blockers
   - Dilantin – phenytoin
   - Cyclosporine