

GIT-pharmacology

Archive

Lecture 1

Drugs and the liver

Done by :

Boshra Alqudah

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questions

!! هذا السؤال هو الارشيف الوحيد على هاي المحاضرة

1- All the following drugs cause cholestasis except?

- a- Methyl dopa.
- b- steroids (including contraceptives).
- c- phenothiazines.
- d- tricyclic antidepressants.

answer: a

هاي الاسئلة مش ارشيف هاي اسئلة اضافية

1. In liver failure, the bioavailability of oral drugs with high hepatic extraction ratios:

- a) Decreases
- b) Increases ✓
- c) Remains unchanged
- d) Becomes zero

2. Which drug is likely to have its bioavailability MOST affected by liver cirrhosis due to high hepatic extraction?

- a) Lorazepam
- b) Propranolol ✓
- c) Diazepam
- d) Methadone

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3. Hypoalbuminemia in cirrhosis increases the risk of toxicity for:

- a) Drugs with low protein binding
- b) Highly protein-bound drugs (e.g., diazepam) ✓
- c) Gaseous drugs
- d) Drugs excreted via the lungs

4. Phase 2 metabolism (e.g., glucuronidation) in liver disease is typically:

- a) Severely impaired
- b) Unaffected or preserved ✓
- c) Accelerated
- d) Replaced by Phase 1

5. Biliary excretion is impaired in liver disease, affecting drugs like:

- a) Digoxin and warfarin ✓
- b) Lorazepam
- c) Gaseous anesthetics
- d) Drugs with MW < 300 g/mol

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6. Paracetamol toxicity occurs due to depletion of:

- a) Cytochrome P450
- b) Glutathione ✓
- c) Albumin
- d) Bile acids

7. Which drug is contraindicated in liver disease due to hepatotoxicity and GI bleeding risk?

- a) Lorazepam
- b) Diclofenac ✓
- c) N-acetylcysteine
- d) Olanzapine

8. Aflatoxin B1 causes liver cancer by forming DNA adducts after metabolism by:

- a) Glucuronyl transferase
- b) Cytochrome P450 ✓
- c) Alcohol dehydrogenase
- d) Lysosomal enzymes

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9. Cholestasis caused by steroids/phenothiazines presents with:

- a) Hypoglycemia
- b) Jaundice ✓
- c) Lactic acidosis
- d) Fatty liver

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10. Which drug reactivates HBV and increases infection risk in liver disease?

- a) Low-dose dexamethasone
- b) High-dose methylprednisolone ✓
- c) N-acetylcysteine
- d) Spironolactone

Cases

A 55-year-old male with alcoholic cirrhosis presents with confusion. He recently started diazepam for anxiety. Lab tests show hypoalbuminemia.

11. Why is he at high risk for diazepam toxicity?

- a) Increased renal excretion
- b) Reduced protein binding ✓
- c) Enhanced Phase 1 metabolism
- d) Biliary obstruction

12. What alternative drug would be safer?

- a) Propranolol
- b) Lorazepam (lower protein binding)
- c) A drug metabolized only by glucuronidation (e.g., oxazepam) ✓
- d) Diclofenac

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A 30-year-old female ingested 10g of paracetamol. She has cirrhosis and glutathione deficiency.

13. The toxic metabolite responsible for liver injury is:

- a) N-acetyl-p-benzoquinoneimine (NAPQI) ☒
- b) Aflatoxin B1
- c) Carbon tetrachloride
- d) Vinyl chloride

14. The antidote of choice is:

- a) Vitamin K
- b) N-acetylcysteine (NAC) ☒
- c) Halothane
- d) Warfarin

A 60-year-old with chronic hepatitis C develops joint pain. The physician considers NSAIDs.

15. Why are NSAIDs contraindicated?

- a) They increase bile secretion
- b) Risk of hepatotoxicity, GI bleeding, and renal failure ☒
- c) They enhance Phase 2 metabolism
- d) They reduce portal hypertension