



DRUGS & LIVER

Liver

1- Drugs affecting bile secretion

A. Cholagogues

- Stimulates the flow of bile from the gall bladder to the duodenum through:

- 1) Relaxation of the sphincter of oddi (e.g. MgSO_4).

- 2) Contraction of the wall of the gallbladder:

- a- Cholecystokinin (meat & fat).

- b- Parasympathomimetics.

- c- Direct smooth muscle stimulation.

B. Choleric

- Stimulates liver cells to secrete bile (increase volume & solid).
- Bile acids & their derivatives (e.g. cholic acids, deoxycholic acid, sodium glucocholate & sodium taurocholate).

Uses:

- 1) Help digestion.
- 2) Relief of flatulence, dyspepsia & constipation.

C. hydrocholeretics

- Stimulates liver cells to secrete the volume but not the solid constitute.

- 1) Oxidized bile acids e.g. Dehydrocholic acids (Decholin).

- 2) Salicylate & benzoate.

Uses: For flushing the diseased biliary passage.

Contraindications:

- 1) Acute hepatitis.

- 2) Biliary stones or obstruction.

2- Drugs used for dissolution of gall stones

- For small (< 5mm.), non-calcified stones. They include: **Chenodeoxycholic acid (Chenodiol).**

1. Ursodeoxycholic acid.

Mechanism of action: Inhibit 3-hydroxymethyl-glutaryl-coenzyme A reductase (HMG-COA reductase) (inhibit hepatic cholesterol synthesis).

Side effects: Diarrhea.

N.B. Estrogen (increases cholesterol secretion in bile) → reduces their effect.

3- Drugs affecting biliary spasm

1- Morphine + Atropine.

2- Mepridine.

3- Glyceryltrinitrate.

4- Drugs used in therapy of hepatic encephalopathy

1. Neomycin: Inhibits ammonia-producing organisms.

2. Lactulose: Decreases absorption of ammonia & enhances its secretion.

Toxic effects of drugs on the liver:

1. Zonal necrosis	<ul style="list-style-type: none">• tetracholrid Carbon.	<ul style="list-style-type: none">• Paracetamol.
2. Viral hepatitis-like reactions	<ul style="list-style-type: none">• Halothane.• Isomiazid.	<ul style="list-style-type: none">• Phenytoin.
3. Cholestasis	<ul style="list-style-type: none">• Methyl testosterone.• Carbimazole.• Chlorpromide.	<ul style="list-style-type: none">• Oral contraceptives.• Chlorpromazine.
4. Fatty liver	<ul style="list-style-type: none">• Tetracycline.	
5. Chronic hepatitis	<ul style="list-style-type: none">• Methyldopa.	<ul style="list-style-type: none">• Isomiazid.