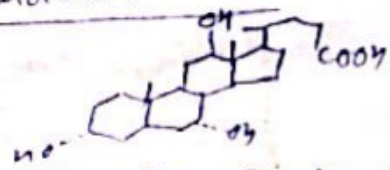


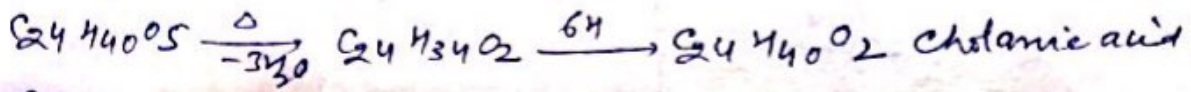
Cholic Acid Bile Acid - 2nd. Lec
 3,7,12-trihydroxy 5 β -cholanic acid
 by P.K. Sharma

12.4.20.



Constitution Monocyclic formula $C_{24}H_{40}O_5$

- ① Presence of 3-OH groups - It forms tri acetate on acetylation and a tri keto compound on oxidation, showing the presence of 3-OH groups in cholic acid
- ② Presence of 1-COOH group - It forms salt with glycine, showing the presence of 1-COOH group.
- ③ Steroid nucleus - on St distillation Diels hydrocarbon is obtained showing the presence of steroid nucleus.
- ④ Trihydroxy deriv. of cholanic acid on heating followed by redⁿ, cholanic acid is obtained, showing it should be tri hydroxy deriv. of cholanic acid



⑤ Position of OH groups

"Cholic acid"

Applications or Functions of bile acids

- ① Bile acids facilitate digestion of fats by emulsifying them into water soluble substances and thus increase area of surface for pancreatic enzymes.
- ② They activate cholesterol lipase and pancreatic lipase enzymes.
- ③ Help in the absorption of cholesterol and other fat soluble substances.