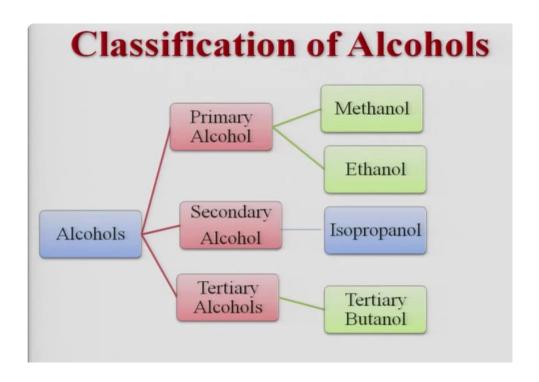
ALCOHOL AND DISULFIRAM

- Absolute alcohol= 99% w/w ethanol
- Rectified spirit= 90% w/w ethanol produced by fermentation of molasse.
- Proof spirit= Whisky + gun powder + ignited= explodes= proof strength.

Alcohol

- Alcohol, primarily in the form of ethyl alcohol (ethanol), has occupied an important place in the history of humankind for at least 8000 years
- Alcohols are hydroxy derivatives of aliphatic hydrocarbons
- · When alcohols unpurified called as ethyl alcohol/ Ethanol
- Alcohols are manufactured by Fermentation of sugars



PHARMACOLOGICAL ACTION

- Local action: Rubefacient, Astringent, Counter irritant, Antiseptic
- CNS effect: CNS depressant, Euphoria and decreased anxiety at small dose, at high dose mood and feeling altered, impair muscle coordination
- CVS effect: Gastric vasodilation and skin is warmed and flushed at small dose, Tachycardia and mild increase in B.P. at moderate dose, Myocardial depression at high dose

- Blood: Regular intake with small dose causes increase HDL cholesterol level
- Body temperature: Produce sense of warmth due to cutaneous and gastric vasodilation at small dose, Depress temperature regulating center
- Respiration: Brandy and Whisky= Respiratory stimulant
- GIT: Irritant and increase gastric acid secretion (Appetizer) overdose= gastric

- Liver: Fatty liver, Enlargement of liver Chronic use (increase microsomal enzyme)
- 9. Skeletal Muscle: Decrease Fatigue
- 10. Kidney: Diuretic
- 11.Aphrodisiac: Increased sexual behavior
- 12.Endocrine: (Nor-adrenaline) Increase adrenaline, (Hypoglycemia) Increased sympathetic effect

Ethanol act by-

- Inhibiting cholinergic nicotinic receptors.
- Influence many I.M. channel inducing K+.

Drug Interaction-

- Alcohol= Synergistic- Antianxiety, Antidepressant, Hypnotic
- Hypoglycaemic effect of insulin and sulfonylureas= increases
- Alcohol with aspirin and NSAIDs= Increase gastric bleeding

Contraindication:

- · Patient with peptic ulcer
- Epileptic patients
- Patients with liver damage
- Pregnant women

Side effects- Nausea, Vomiting, Flushing, Hangover

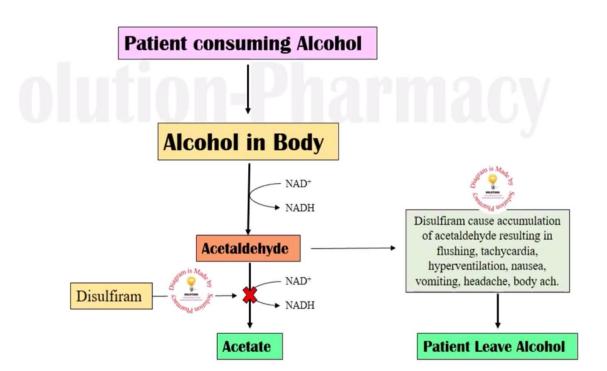
Severe effects- Unawareness, non-responsiveness, hypotension, respiratory depression, coma, death

Disulfiram

- Disulfiram is an aldehyde dehydrogenase inhibitor
- It is used in chronic alcoholics
- When alcohol injected after taking Disulfiram, the concentration of acetaldehyde in tissues and blood rises & aldehyde syndrome produced promptly

Dienli

Mechanism of Action of Disulfiram



Alcohol Dehydrogenase Acetaldehyde Dehydrogenase

Ethanol

Acetaldehyde

Acetate

Disulfiram Disulfiram is an Alcohol Aversive Drug indicated in the treatment of Chronic Alcoholism Unpleasant Symptoms Mechanism of Action Nausea, Vomiting, Flushing, Ethyl Alcohal throbbing Headache, perspiration, Uneasiness, Alcohol Dehydrogenase Acetaldehyde tightness in Chest, Dizziness, Mental Confusion, Disulfiram-X Aldehyde Dehydrogenase Visual Disturbances, Acetic Acid postural Fainting and Circulatory collapse. CO2 + H2O + Energy Duration of Reaction Disulfiram 1-4 hours Accumulation of Acetaldehyde (blood & tissues) Dose & Usage No Alcohol in last 12hrs 500 mg/day for one week followed by 250 mg daily Highly Distressing Symptoms (Disulfiram like Reaction) Side Effects Rashes Malaise, Abdominal Upset Copyright @ 2020 by Dr CL.M.