

Local Anaesthetics.

- Lignocaine - MOA, uses, ADR.
- spinal anaesthesia.

[why local anaesthetic + adrenaline.]

↓
act as vasoconstrictor.

- slow absorption from local site so prolonged duration of action
- decreased bleeding in surgical field
- slow absorption of LA reduces its systemic toxicity.

C/I

- intense vasoconstriction and ischaemia in tissues with end arteries → gangrene of that part
so C/I in fingers, toes, tip of nose etc.

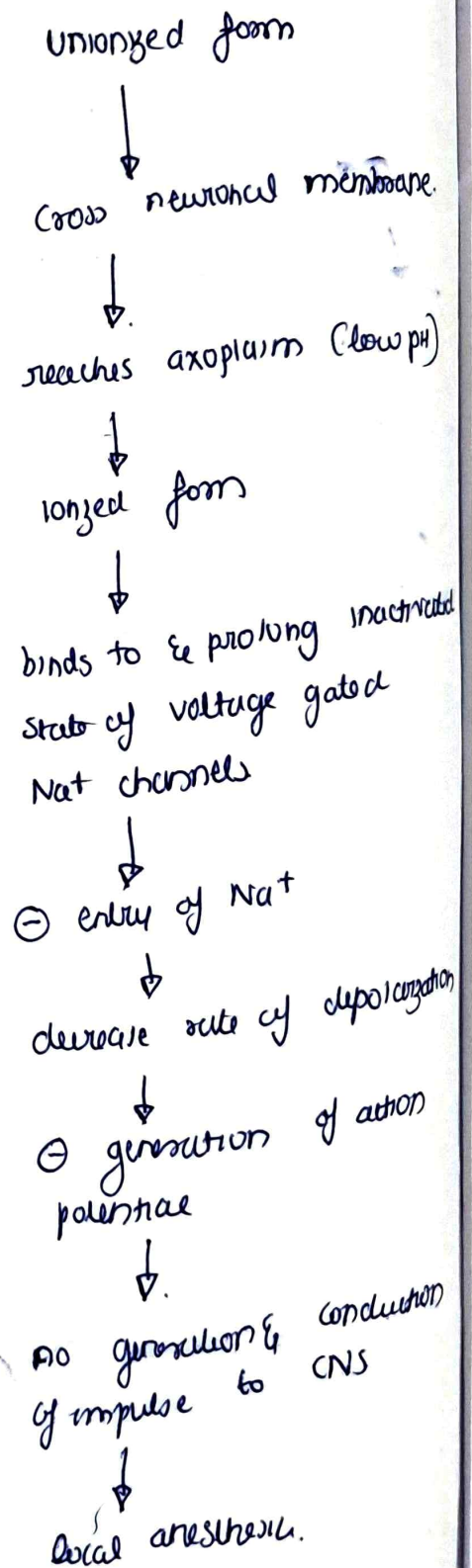
- absorption of adrenaline can cause systemic toxicity. → BP↑, arrhythmias etc.

so C/I in HTN Arrhythmia
CHF IHD.

- delay in wound healing.

Lignocaine - amide type

MOA



USES

- spinal anesthesia.
- nerve block.
- infiltration & surface anesthesia.
- class Ib - ~~local~~ antiarrhythmic.

↓
ventricular arrhythmias ✓
{ post MI
dysrhythmia toxicity }

ADR

- CVS → AV block
bradycardia.
hypotension.
- CNS → seizure &
tumors.
- allergy
- EMMA
- eutectic mixture of
lidocaine & prilocaine.
↓
topical anesthetic.

Spinal anesthesia.

• side:

• used:

• complications:

- ① Headache - due to CF leak.
↓
T / small needle.
- ② hypotension: block of
sympathetic vasoconstrict
fibres to BV.
T/E - sympathomimetic
ephedrine.
↓
venous return: paralysis
of m.
↓
renal perf. ↓
renal end.
- ③ respiratory paralysis
↓
intercostal paralysis.
seizure - RC - ischemia
due to hypotension.

- ④ urinary retention
- ⑤ septic meningitis, injury.

C/I

- children
- vertebral anomalies
- hypotension, shock.
- sepsis in region of
lumbar puncture.

General Anesthetics.

propofol.

- IV general anesthetic - rapid onset, rapid recovery.

MOA

act on GABA receptors to

↑ Cl⁻ conduction.

↓
hyperpolarization

↓
CNS depression

Uses

- ① day care surgery / short procedures.
- ② Induction + maintenance of anesthesia.
- ③ antiemetic effect ** (UNIQUE)
- ④ ICU sedation
- ⑤ refractory status epilepticus.

ADR

* hypotension, bradycardia **

- pain at injection site
- respiratory depression.

Halothane.

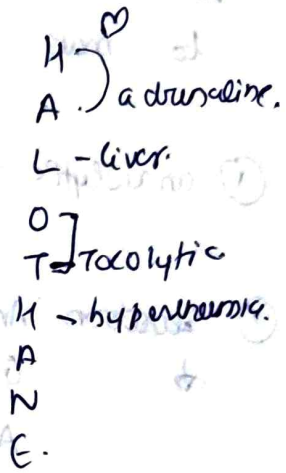
• Inhalational GA - volatile liquid.

USES

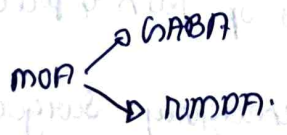
- potent anesthetic → very low **MAC**.
- no airway irritation → ^{preferred} ~~and in~~ _{asthmatics}
- Tocolytic - used in maternal version of baby in ^{hypertensive} ~~hypertensive~~ _{hypertensive}

ADR.

- Halothane hepatitis on repeated use.
- malignant hyperthermia with Succinylcholine. [T_{1/2} → 0.5 min]
- sensitize myocardium to catecholamines. → risk of arrhythmias.



Sevoflurane.



- preferred in pediatric age.
- ✓ sweet odor
- ✓ no irritant to airway
- no cough X
- laryngospasm X.

pre anesthetic medication.

to make anesthesia safe & pleasant

- ① anxiolytic → Benzodiazepines - diazepam, Midazolam.
- ② secretion Anticholinergics → scopolamine ↓
↓ Glycopyrrolate → ⊖ Bradycardia - vagal stimulation.
Atropine.
- ③ antiemetic - Ondansetron, metoclopramide.
- ③ H₂ blocker / PPI - Pantop. → ↓ aspiration risk
Omeprazole.
- ③ opioid analgesics - Morphine, fentanyl.
relieve post op pain & preop pain.
- ④ faster gastric emptying before emergency surgery → Metoclopramide
Domperidone.

Glycopyrrolate preferred?

- ① 4^o - do not cross BBB, no CNS S/E
- ② less tachycardia.
- ③ more potent anticholinergic.
- ④ longer duration of action.

KETAMINE.

- K - Kids DOC.
 - E - Emergence
 - T - Thalamo-cortical & limbic - Dissociative anesthetic.
 - A - analgesic max
 - m - meds ✓
 - I - increase all pressures
 - N - NMDA receptor blocker.
 - E - Eschal bronchodilator.
- c/I - glaucoma, head injury.

N₂O.

- ① MAC 105% - cannot be used alone.
- ② causes diffusion hypoxia.
- ③ expands closed air cavities.
- ④ megaloblastic anemia.

overdose - Flumazenil.

Uses: preanesthetic - anxiolytic. muscle relaxant.

- convulsions
- status epilepticus
- febrile seizure
- alcohol withdrawal symptoms.
- insomnia.

- ADR:
- sedation, (drowsiness).
 - amnesia - anterograde.
 - respiratory depression.
 - anterograde amnesia.
 - withdrawal symptoms.

