SAWA UNIVERSITY

جامعة ساوة الاهلية
كلية التقنيات الصحية والطبية
قسم التخدير - اللجنة العلمية

مادة أسس التخدير 1 الكورس الاول

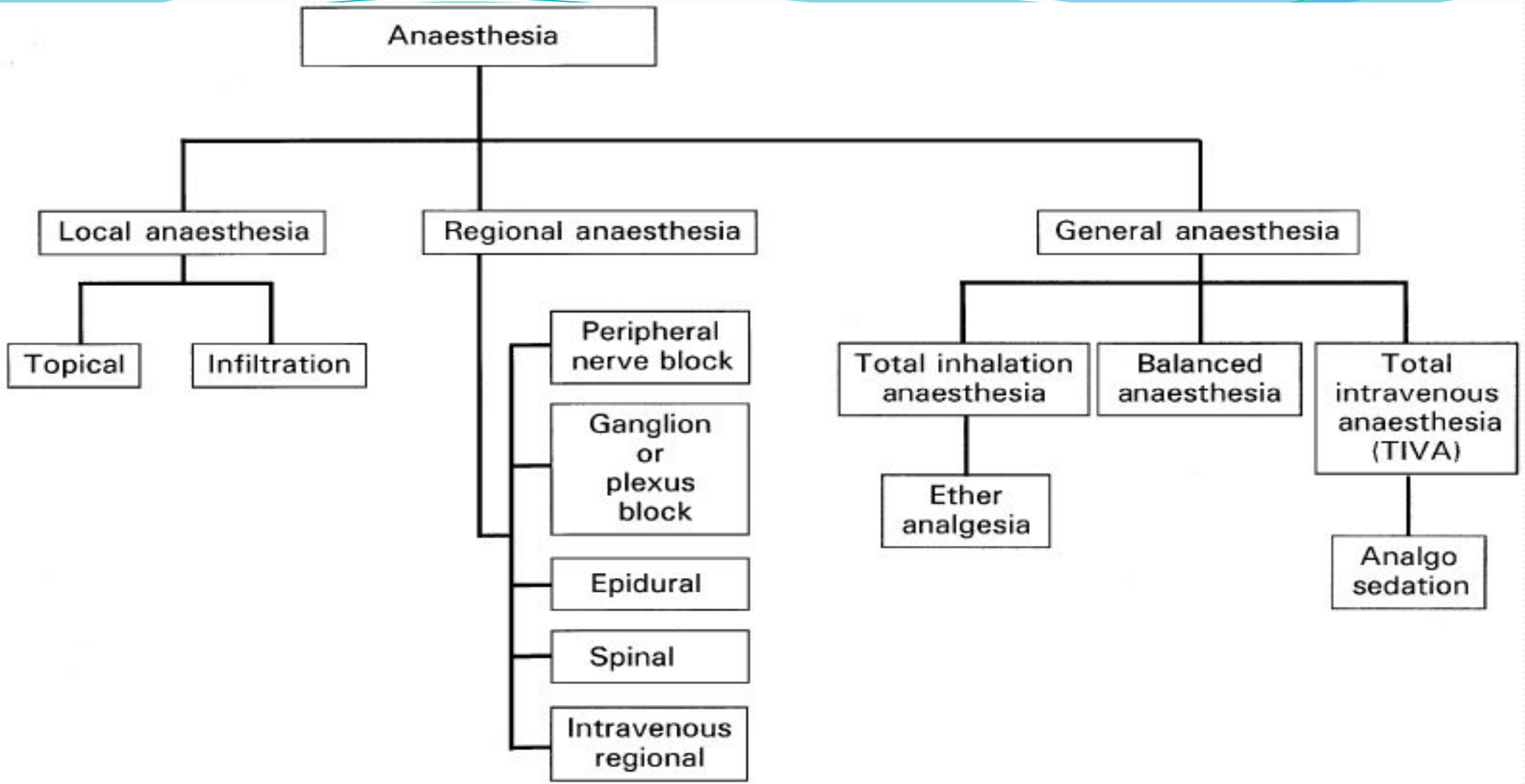
Choice of anesthetic technique

جامعـــــة ســـــــاوة الاهلية	Sawa University
كليـــــة التقنيـــات الصحيـة والطبيـة	College of health and medical techniques
قسم تقنيـــات التخديـــــــر	Department of Anesthesia
. المرحلـــــــــــــة .الثانية	.Second .. Stage

نظـــــــري ...محاضرة رقم 5.

Theoretical Lecture No.5 .....

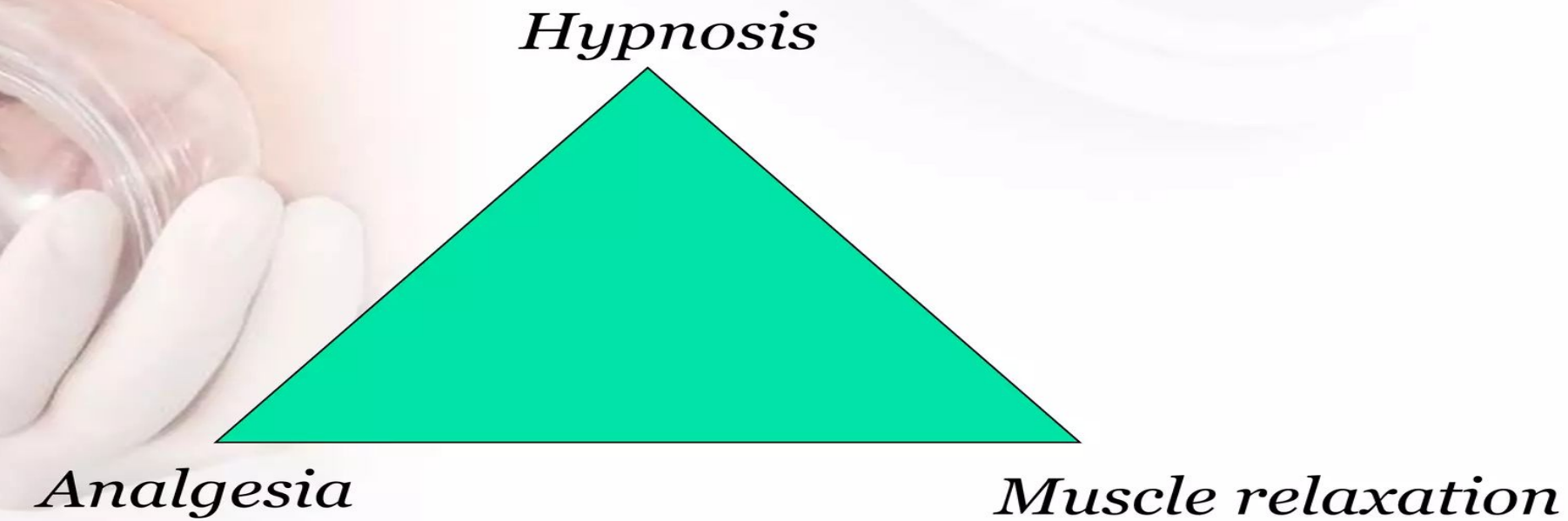
استاذ المادة : .د. حسن جساب البركي


Anaesthesia
Local anaesthesia
Regional anaesthesia
General anaesthesia
Topical
Infiltration
Peripheral nerve block
Ganglion or plexus block
Epidural
Spinal
Intravenous regional
Total inhalation anaesthesia
Balanced anaesthesia
Total intravenous anaesthesia (TIVA)
Ether analgesia
Analgo sedation

Choice of anesthesia

- The patient´s understanding and wishes regarding the type of anesthesia that could be used
- The type and duration of the surgical procedure
- The patients´s physiologic status and stability
- The presence and severity of coexisting disease
- The patient´s mental and psychologic status
- The postoperative recovery from various kinds of anesthesia
- Options for management of postoperative pain
- Any particular requiremets of the surgeon
- ***There is major and minor surgery but only major anesthesia***

Triad of General anaesthesia



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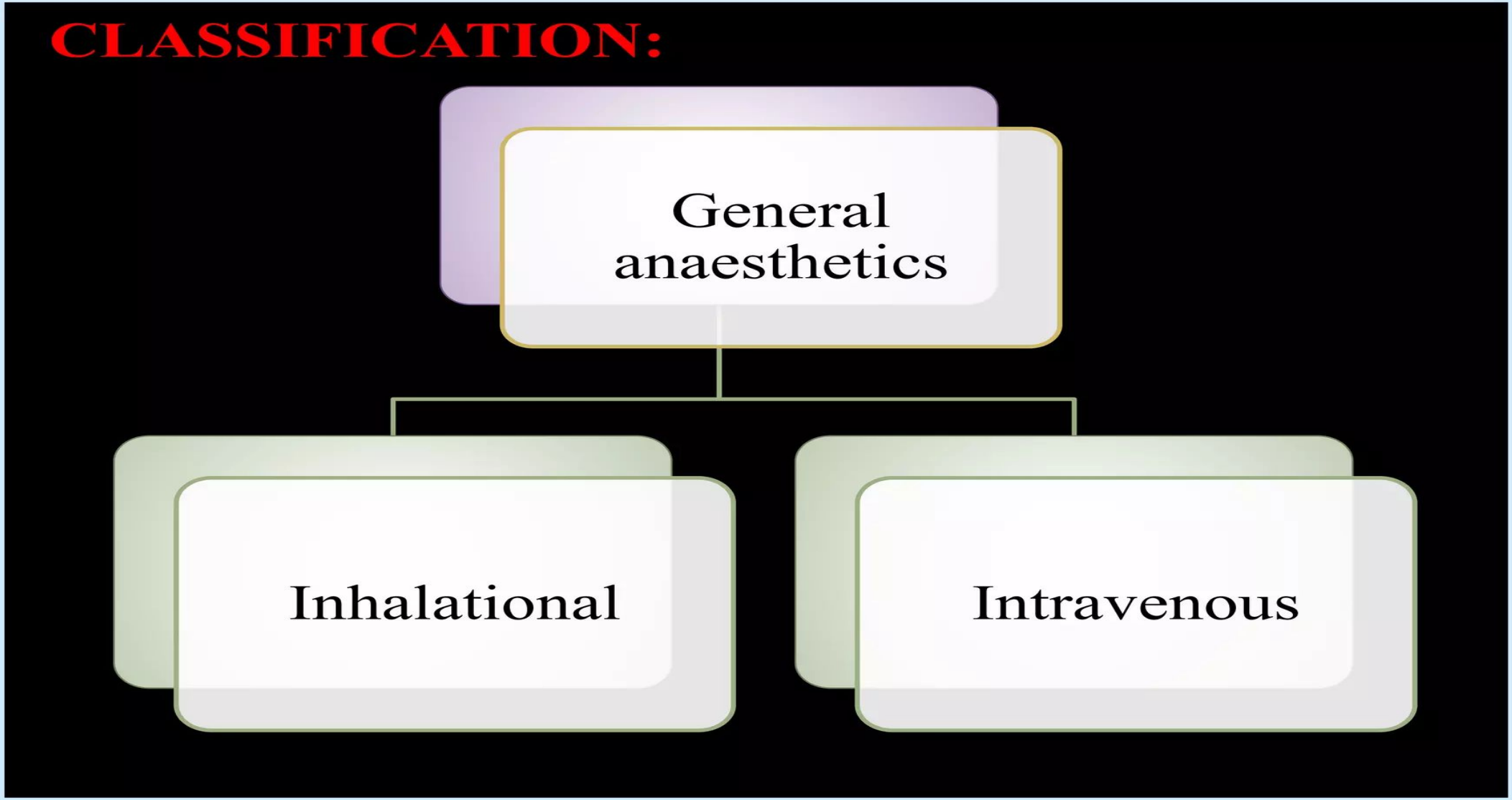


Classic Stages of Anesthesia*

Stage 1: Analgesia

decreased awareness of pain, amnesia ,without loss of consciousness

Stage 2:excitation

delirium & excitation, enhanced reflexes, retching, incontinence, irregular respiration

Stage 3: Surgical Anesthesia

unconscious, no pain reflexes, regular respiration, BP is maintained

Stage 4: Medullary Depression

respiratory & CV depression requiring ventilation & pharmacologic support.

*Seen mainly with Ether. Not all stages are observed with modern GAs.

Hypnotic drugs- intravenous

- Gold standard- thiopentone
- Propofol

others

- Etomidate
- Benzodiazepines
- Ketamine

Inhalational anaesthetics

- Nitrous oxide-weak
- Isoflurane
- Sevoflurane
- Desflurane
- Halothane

Muscle relaxation

- Aids intubation
- Helps surgeon/surgery
- Surgery of long duration
- Reduces maintenance dose of anaesthetics agents

The 21 st century-digital revolution

Phases of general anaesthesia

- Induction
- Maintenance
- Recovery

Post-Anesthesia Care Unit (PACU)

- Also called the recovery room or postanesthesia recovery room
- Kept clean, quiet, free of unnecessary equipment, with indirect lighting, and well ventilated to help patients decrease anxiety and promote comfort
- Should be equipped with necessary facilities

Postoperative Phase

- Admission to PACU
- Maintain airway
- Monitor vital signs
- Assess effects of anesthesia
- Assess for complications of surgery
- Provide comfort and pain relief
- Ends with follow-up evaluation in clinical setting or home

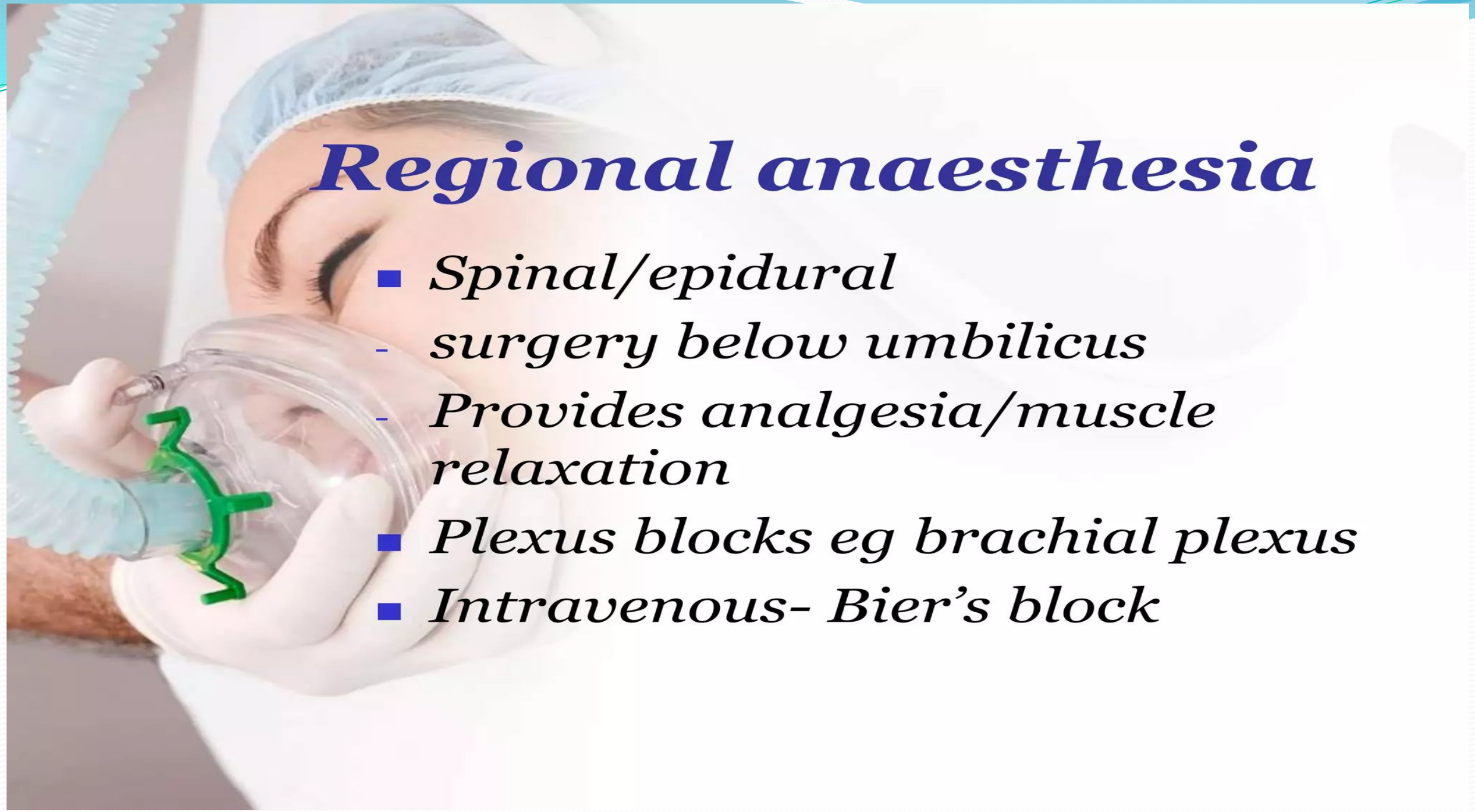
Advantages of GA (General anesthesia)

Disadvantages

- *Poly-pharmacy*
- *Effects on various systems*
- *Allergic reactions*
- *Recovery profile*
- *Post operative Nausea &Vomiting*
- *Awareness*

Potential Complications of General Anesthesia

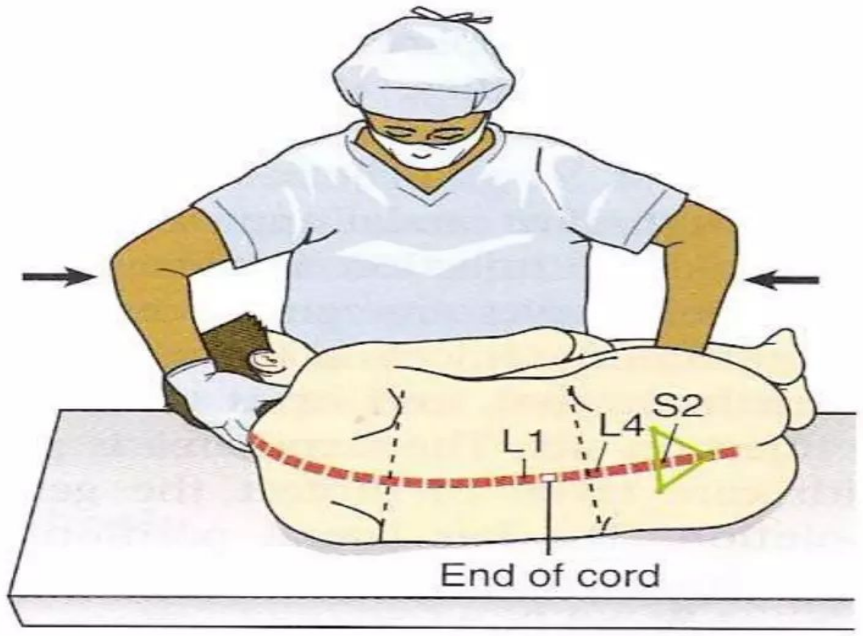
- Overdose
- Unrecognized hypoventilation
- Complications of intubation
- Anaphylaxis
- Hypothermia
- Injury r/t positioning, burns
- Malignant hyperthermia



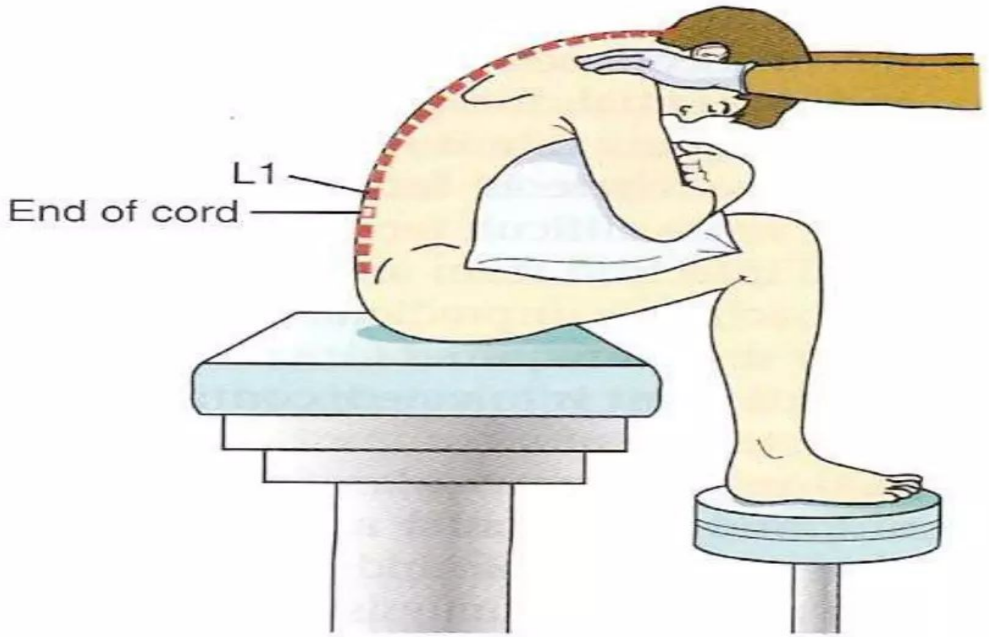
Regional anaesthesia

- *Spinal/epidural*
  - *surgery below umbilicus*
  - *Provides analgesia/muscle relaxation*
- *Plexus blocks eg brachial plexus*
- *Intravenous- Bier's block*

Spinal Block - Position

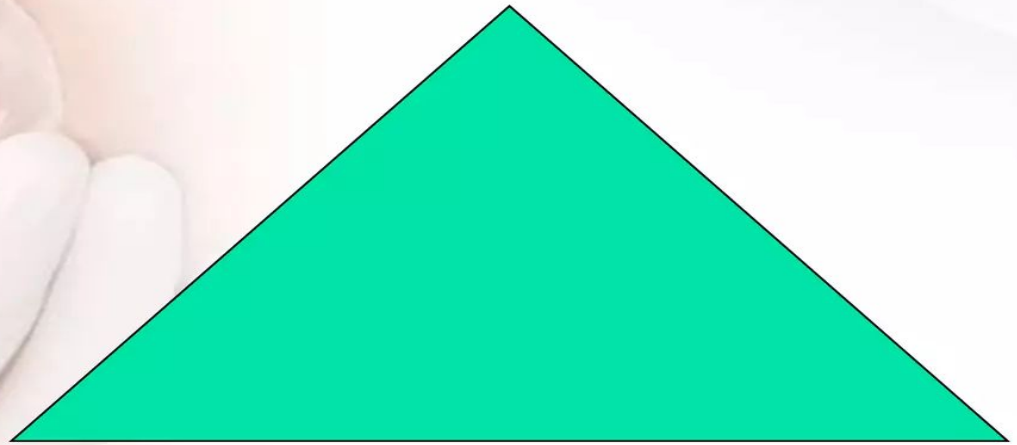


Spinal block—lateral position.



Spinal block—sitting position.

Regional anaesthesia



Analgesia

Muscle relaxation

Local anaesthetics

- *Lignocaine- quick/short acting*
- *Bupivacaine/levobupicvacaine - slow and long action*
- *Ropivacaine- as above*
- *Amethocaine- topical*
- *Prilocaine- intravenous*

Advantages

- *Effective alternative to GA*
- *Avoids polypharmacy*
- *Allergic reactions*
- *Extended analgesia*
- *Patient can remain awake*
- *Early drink/feed*

Disadvantages

- *Limited scope*
- *Higher failure rate*
- *Time constraints*
- *Anticoagulants/Bleeding diathesis*
- *Risk of neural injury*

Any questions?