

مادة أسس التخدير 1 الكورس

HISTORY OF ANESTHESIA



Sawa University

جامعة ساوة

College of health and medical
techniques

الاهلية

Department of Anesthesia

كلية التقنيات الصحية

والطبية

...Second... Stage

قسم تقنيات التخدير

المرحلة ...

محاضرة رقم

نظري

Lecture 1.....
No.1.....

Theoretic
al

الثانية
استاذ المادة : د. حسن جساب
البركي

WHAT IS ANESTHESIA

- Greek **an-** without and **aesthesia** – sensation refers to the inhibition of sensation
- **Origin of anesthesia :**
 - Oliver Wendell Holmes Sr 1846
- **Insensitivity to pain , especially as artificially induced by the administration of gases or the injection of drugs before surgical operation**

WHY ANESTHESIA

- **Loss of awareness/Amnesia**
- **Analgesia**
- **Reduce the movement in response to stimuli**
- **Minimize the autonomic response to surgical stimuli**
- **Muscle relaxant**
- **Autonomic regulation**

HISTORY OF ANESTHESIA

- **Pre- 1846 : – The foundation of anesthesia**
- **1846-1900 : Establishment of anesthesia**
- **20th century : Consolidation and growth**
- **21st century : – The future**

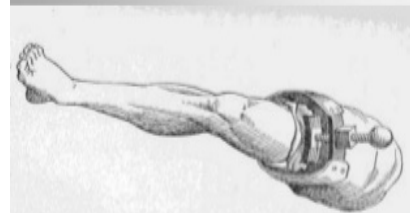
METHOD OF ANESTHESIA

- **Drug method**
- **Non-drug method**

NON DRUGE METHOD

- **Cold**
- **Concussion**
- **Carotid compression**
- **Nerve compression**
- **Mesmeric Magnetism**
- **Hypnosis**
- **Blood letting**

The Foundations of Anaesthesia



- Non-drug methods
 - Cold
 - Concussion
 - Carotid compression
 - Nerve compression
 - Hypnosis
 - Blood letting

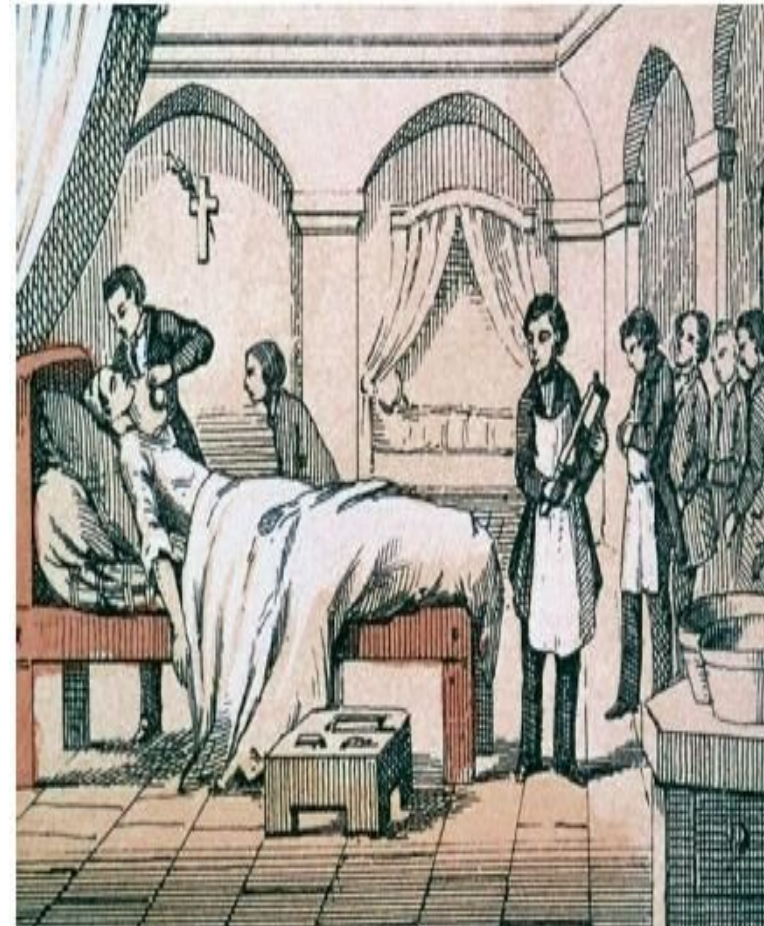
DRUGS METHOD

- **Alcohol**
- **Opium**
- **Hyoscine**
- **Cannabis**
- **Cocaine**



ANCIENT ANESTHESIA

- **Status of surgery**
 - Barber shop surgery
- **Type of surgery**
 - Amputation and dental extraction
 - No antiseptic
 - Appalling mortality
- **Indication**
 - Unbearable pain
 - Crippling deformity
 - Imminent death



WILLIAM T G MORTON

- **First GA was given by use diethyl ether**
- **Inventor and Revealer of inhalational anesthesia : Before whom ,in all time surgery was agony.**



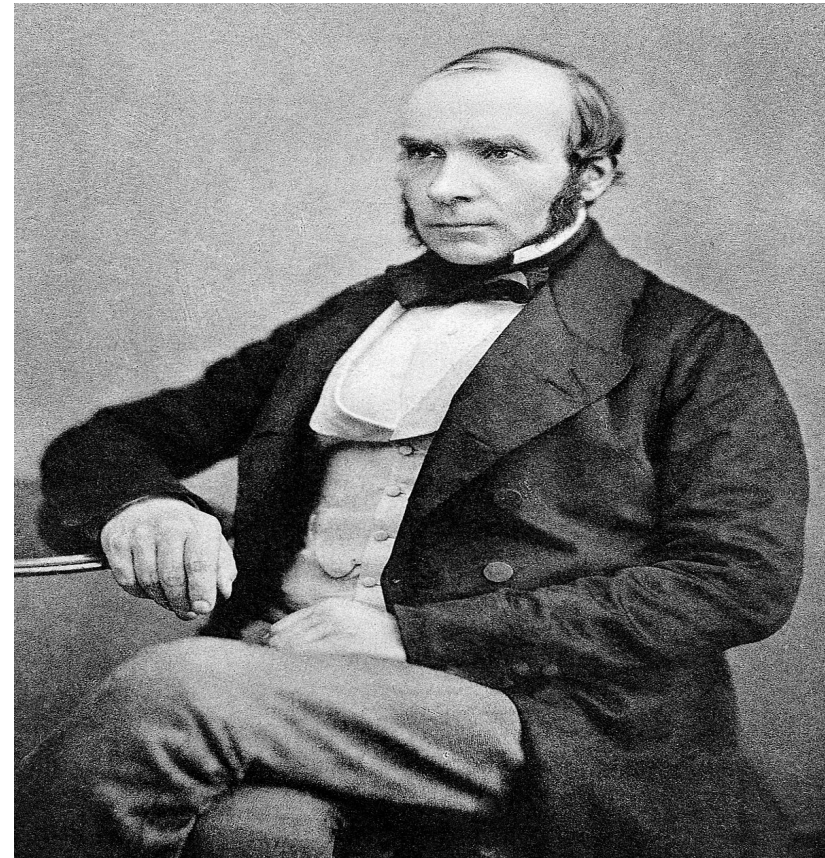
1846 (16TH OCTOBER)

- **Anesthetist**
 - William T G Morton
- **Agent: Ether**
- **Patient**
 - Gilbert Abort
- **Operation**
 - Excision of tumor under jaw
- **Surgeon**
 - John Collin Warren



JOHN SNOW

- **Use chloroform to deliver the last two children of *Queen Victoria***
- **First anesthesiologist**
- **Describe the stage of ether anesthesia**
- **Improve the method of administration of ether and chloroform**



John Snow

ETHER

- **1540:** Synthesized and named “*sweet oil of vitriol*” by Valerius Cordus
- **Renamed ether by:** Frobenius
- **1744 :** Matthew discovered it inhalational properties
- **1818:** Michel Faraday discovered “*narcotic effect*”

Cont....

- **1842 :**
 - **first use as clinical anesthetics in USA**
- **1846 (16th October):**
 - **first public demonstration in Boston**



NITROUS OXIDE

- **Joseph Priestley**
 - First prepared by 1773
- **Humphrey Davy**
 - applied N_2O on himself by face mask design for industry.
 - Noted it analgesic properties 1800



CHLOROFORM

- **1831: Synthesized :**
- **1847: Anesthetic properties discovered**
- **1847 : First clinical use London**
- **1847: James Young Simpson use it for obstetric anesthesia**
- **1847: John snow regulating inhaler**
- **1847: Hannah Greener first anesthetic death**

20TH CENTURY

CONSOLIDATION AND GROWTH

CONT...

- **Intubation and airway advance**
- **Anesthetic equipment**
- **Monitoring**
- **Drug advance**
- **Pain management**
- **Intensive care**
- **Local anesthesia**
- **Organization of specialty**

INTUBATION & AIRWAY ADVANCE

- **1919: Endotracheal intubation**
- **1928: blind nasal intubation**
- **1950: PVC tube introduce**
- **1954: Classification of breathing circuit**
- **1972: Bain circuit**
- **1980: LMA**

ANESTHETIC EQUIPMENT

- **1908:** Rota meter
- **1917:** Boyles machine
- **1938:** Mechanical ventilation
- **1940:** Oxford vaporizer

MONITORING

- **Bp Monitor: MGH**
- **1946: O₂ analyzer**
- **1949: Nerve stimulator**
- **1956: Blood gas monitor**

DRUG ADVANCE

- **1911: Balance anesthesia**
- **1942: Curare**
- **1951: Suxamethonium**
- **1956: Halothane**
- **1964: Entonox**
- **1980: fentanyl/Propofol/vecuronium**
- **1990: Sevoflurane**

LOCAL ANESTHESIA

- **Definition:**
 - Any substance that prevent the conduction of nerve impulse is called local anesthetics.
- Substance that block the voltage- activate Na^+ channel.

CONT...

- **Cocaine:**
 - Naturally occurring compound, indigenous to the **Andes mountains.**
 - Alkaloid obtain from:
 - Leaves of **Erythroxylum coca**
 - First LA to discover 1800
 - Only naturally occurring LA
 - Koller use as a LA in 1883 in eye
 - Hall introduce it in dentistry

CONT.....

- **Procaine :**
 - **Developed : 1904**
 - **First synthetic LA**
- **Lidocaine :**
 - **Discovered by : Lofgren 1943**
 - **Market available : 1947 (xylocaine)**
 - **First amide LA**
 - **Most widely use cocaine derivatives**
- **Bupivacaine :**
 - **Discovered : 1957**
 - **Market available : 1965**

REGIONAL ANESTHESIA

- **Spinal anesthesia :**
 - 1885: by Leonard Corning
 - 1898: August Bier
- **Epidural : 1921**
- **IVRA:**
 - 1908 by “August Bier”
 - Use procaine in a vein between two tourniquets

August Bier



Any questions?

*Thank
You*