

Surgery before anesthesia



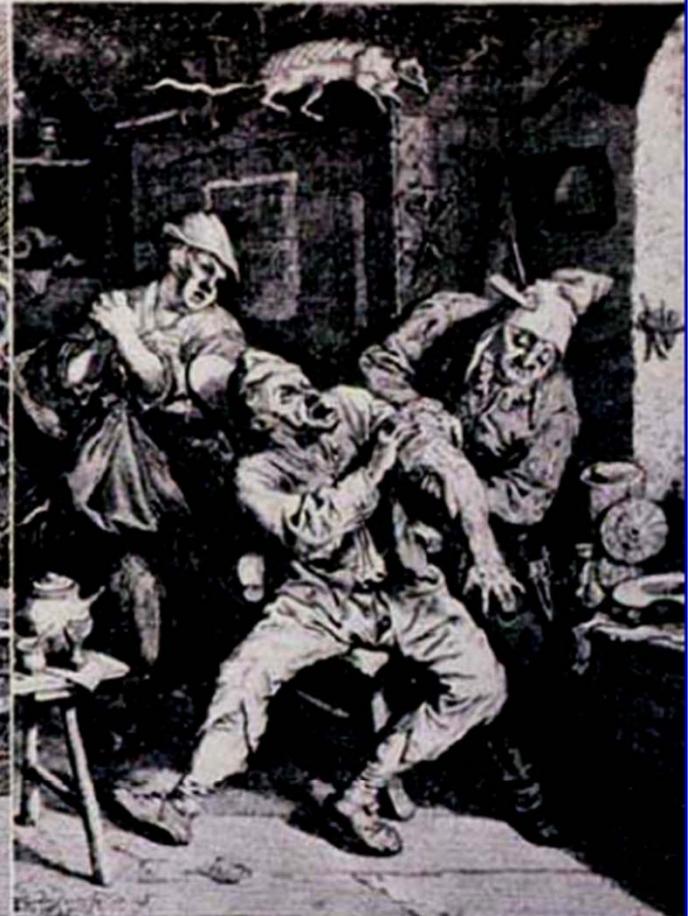
Mural of Dr. Villander, Hôtel de Dieu, Paris.

A



From *Behind the Doctor*, by Logan Clendenning, published by Alfred A. Knopf.

B



From *Devils, Drugs and Doctors*, by Howard W. Haggard, M.D., published by Harper and Brothers.

C

PICTORIAL RECORDS OF THE AGONY ENDURED IN OPERATIONS BEFORE THE ADVENT OF ANESTHESIA

- A. A surgeon cutting with his big saw.
- B. A very painful operation of the seventeenth century.
- C. A surgeon torturing his patient.

General Anesthetics



History of Anesthesia



William Morton, dentist – first demonstration of successful surgical anesthesia with ether 1846



John C. Warren, surgeon “Gentlemen, this is no humbug!” – birth of modern anesthesia



Dr. John Snow administered chloroform to Queen Victoria (1853)– popularized anesthesia for childbirth in UK. He became the first anesthesia specialist.



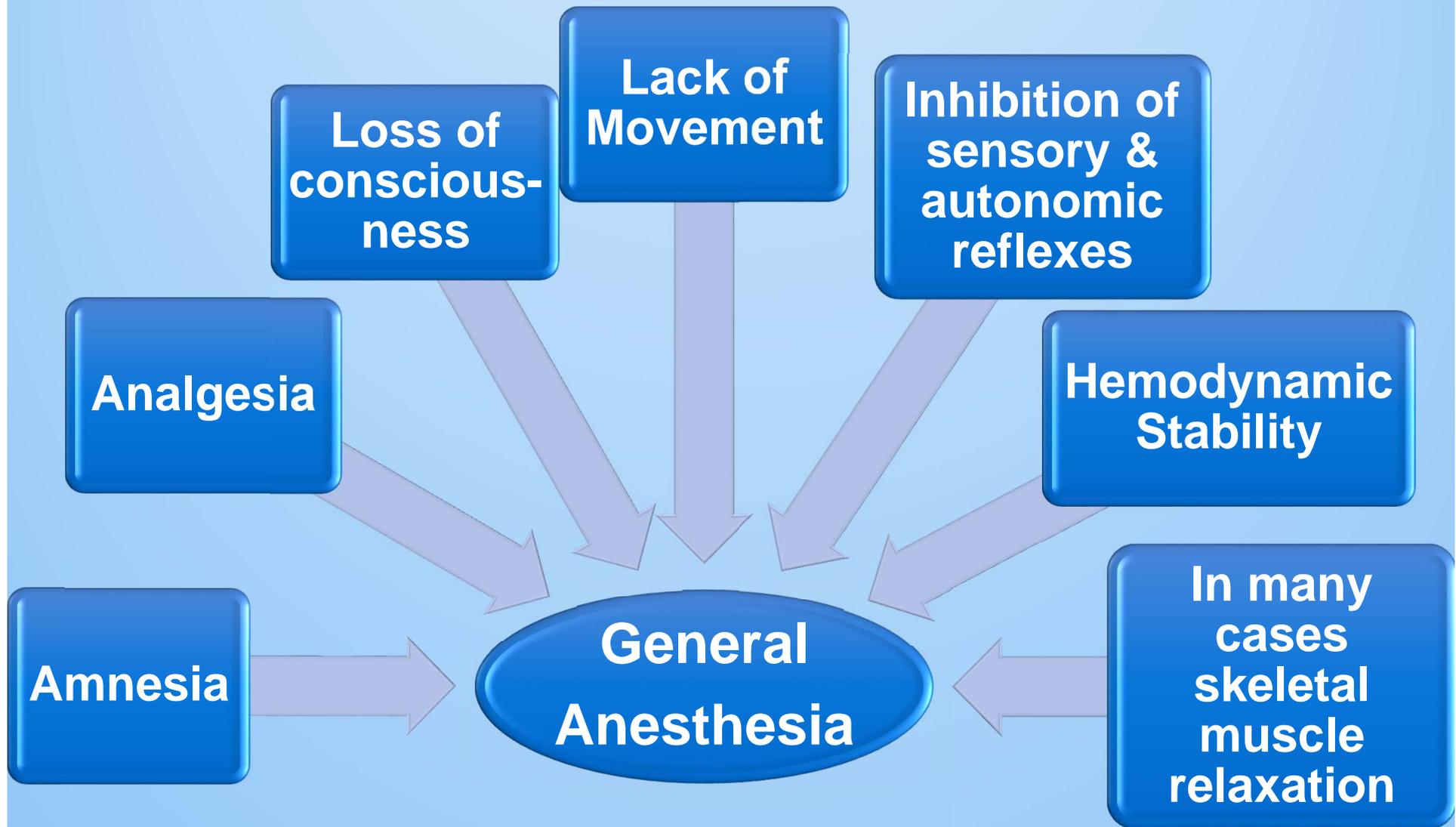
Ether became anesthesia of choice in US, chloroform in UK

Anesthesia

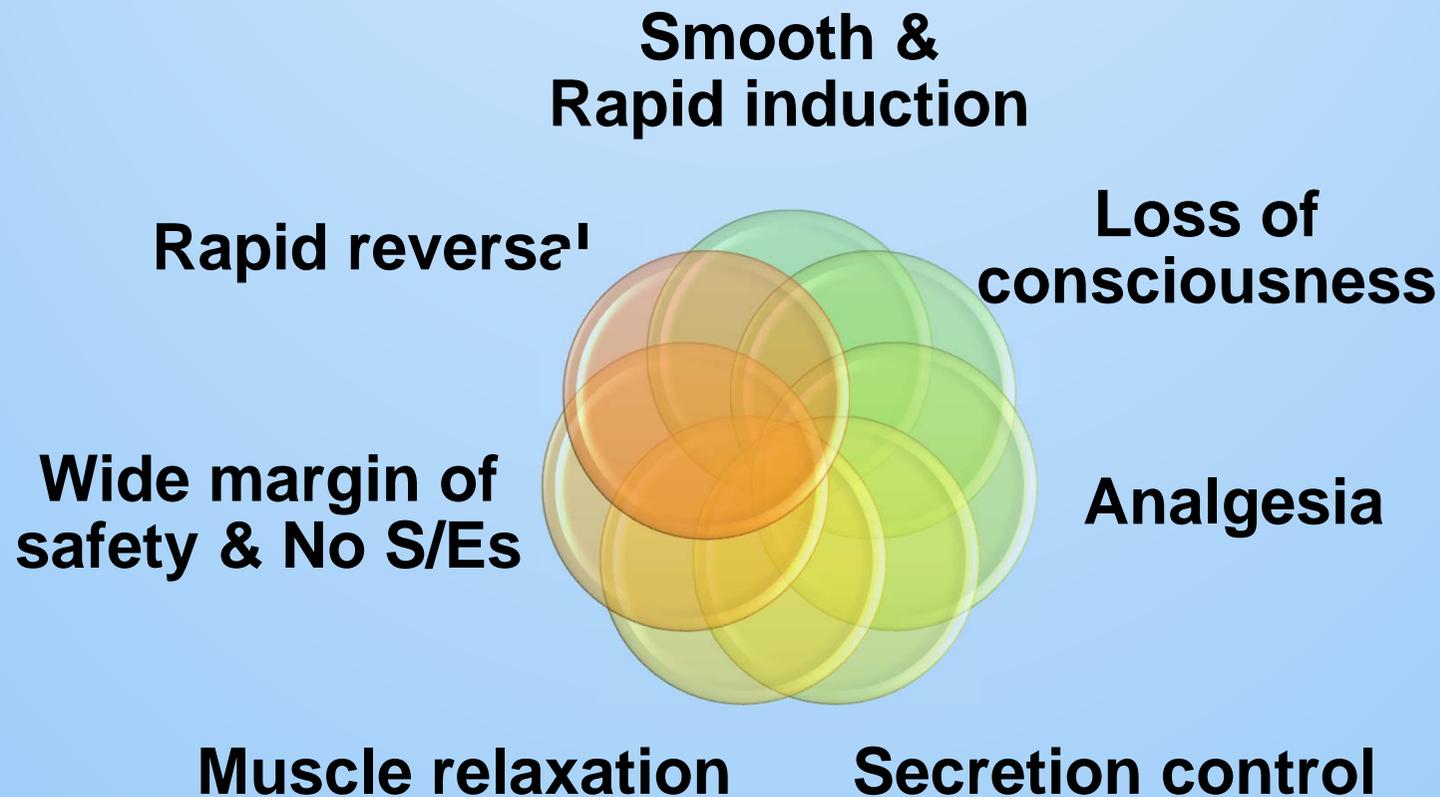
Allows surgical, obstetrical and diagnostic procedures to be performed in a manner which is painless to the patient

Allows control of factors such as physiologic functions and patient movement

What is “Anesthesia”?



Desired Effects Of General Anesthesia (Balanced Anesthesia)



No single agent is ideal, combination of different agents is used to produce balanced anesthesia.

Types of anesthesia

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graph TD; A[Types of anesthesia] --> B[Inhalation anesthesia]; A --> C[Total intravenous anesthesia]; A --> D["Inhalation plus intravenous ('Balanced Anesthesia')"]; B --> E["Anesthetics in gaseous state are taken up by inhalation"]; D --> F[Most common];
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Inhalation anesthesia

Anesthetics in gaseous state are taken up by inhalation

Total intravenous anesthesia

Inhalation plus intravenous ("Balanced Anesthesia")

Most common

- **For major surgical procedures:**
 - **Pre-operative sedatives**
 - **Induction of anes. with thiopental or other rapidly acting i/v drugs.**
 - **Deeper levels with inhaled anesthetics alone or in combination with i/v drugs.**

Maintenance: continuous monitoring & medication

Maintain depth of anesthesia, ventilation, fluid balance, hemodynamic control, homeostasis



Emergence: resumption of normal CNS function

Extubation, resumption of normal respiration