

SNS COLLEGE OF ALLIED HEALTH SCIENCE

Affiliated to The Tamil Nadu Dr MGR Medical University, Chennai

**DEPARTMENT OF CARDIOPULMONARY PERFUSION CARE
TECHNOLOGY**

COURSE NAME: Introduction to Surgery

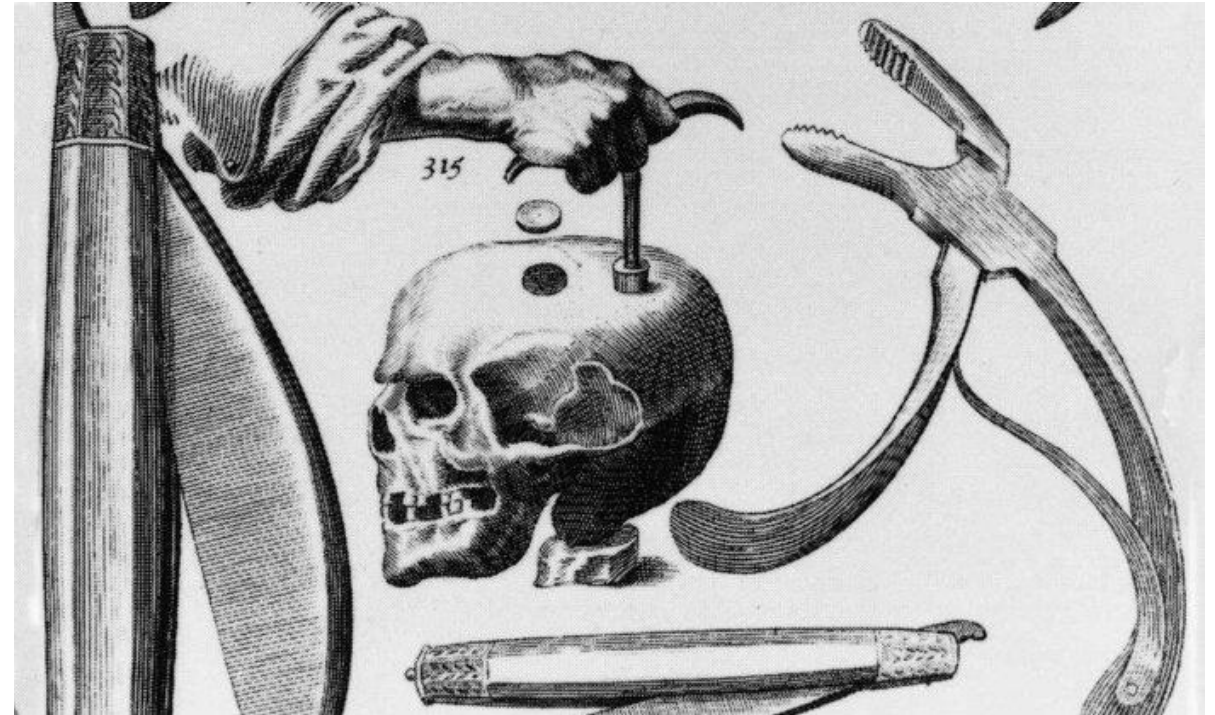
UNIT I

TOPIC: History of Surgery

FACULTY NAME: Mrs. Saranyaa Prasath

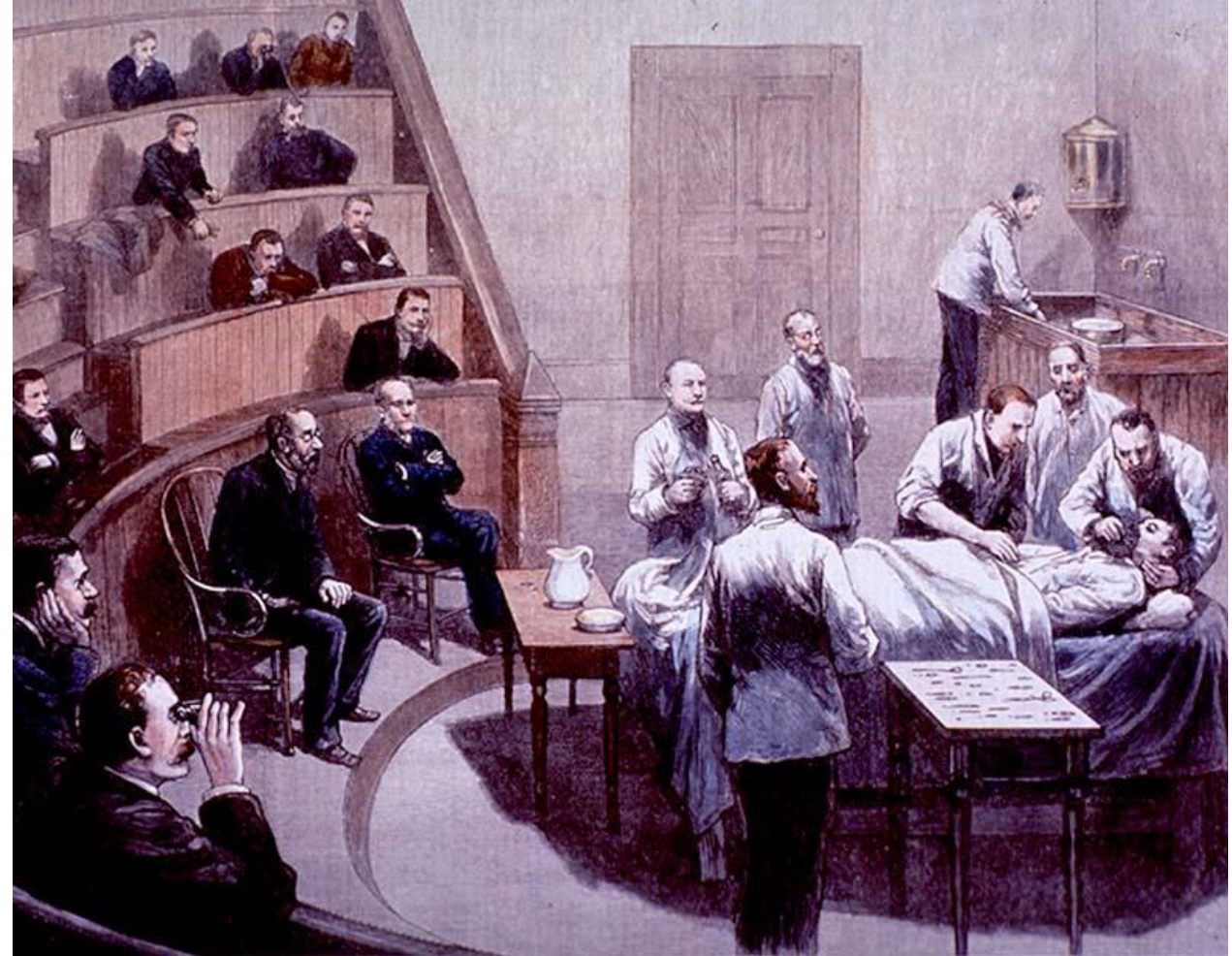
Empathize: Early Human Challenges

- Prehistoric trepanation (skull surgery) as early as 6500 BCE.
- Ancient healers responded to trauma, injury, and disease—driven by social need.



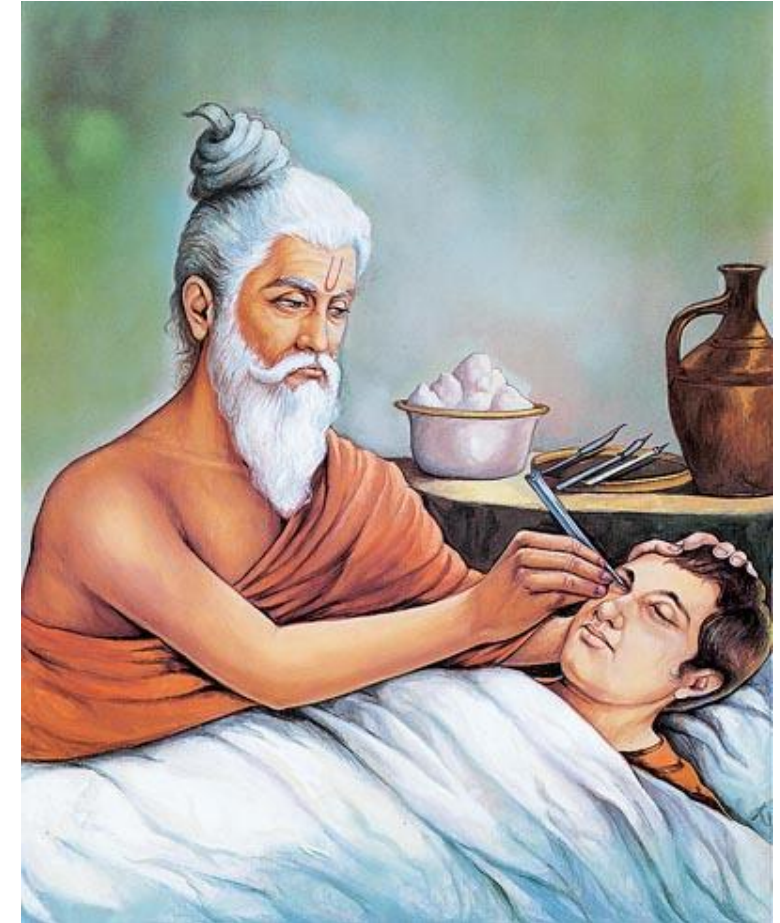
Define: The Problem of Injury and Disease

- Early societies faced wounds, fractures, and tumors without anesthetics or antibiotics.
- Surgery associated with high pain and mortality.

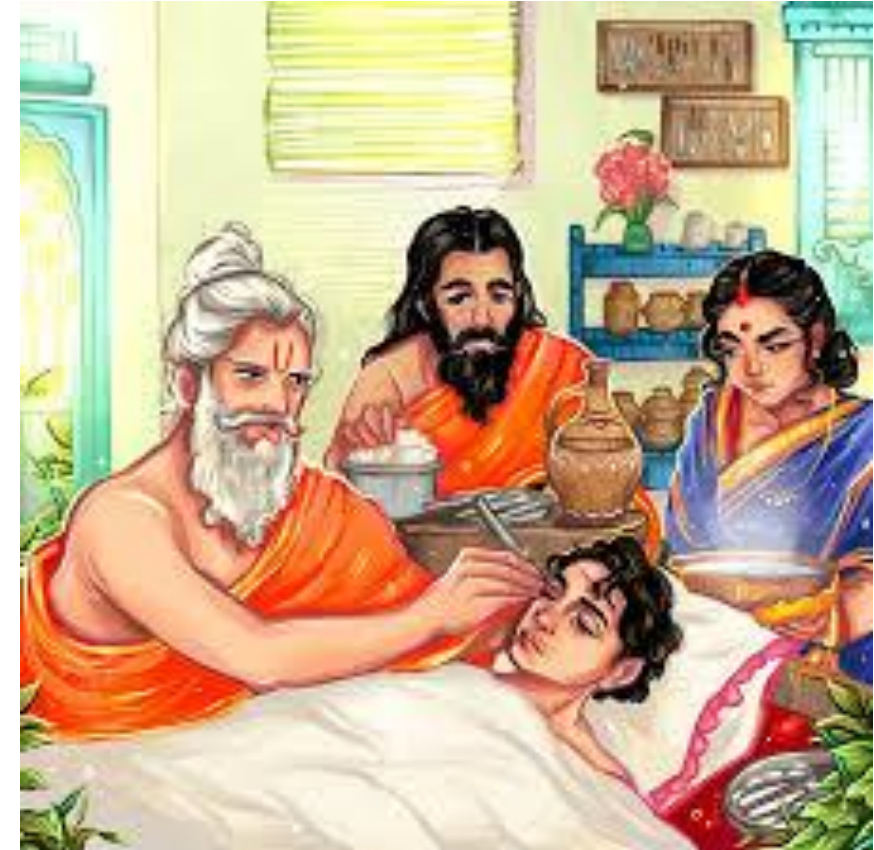
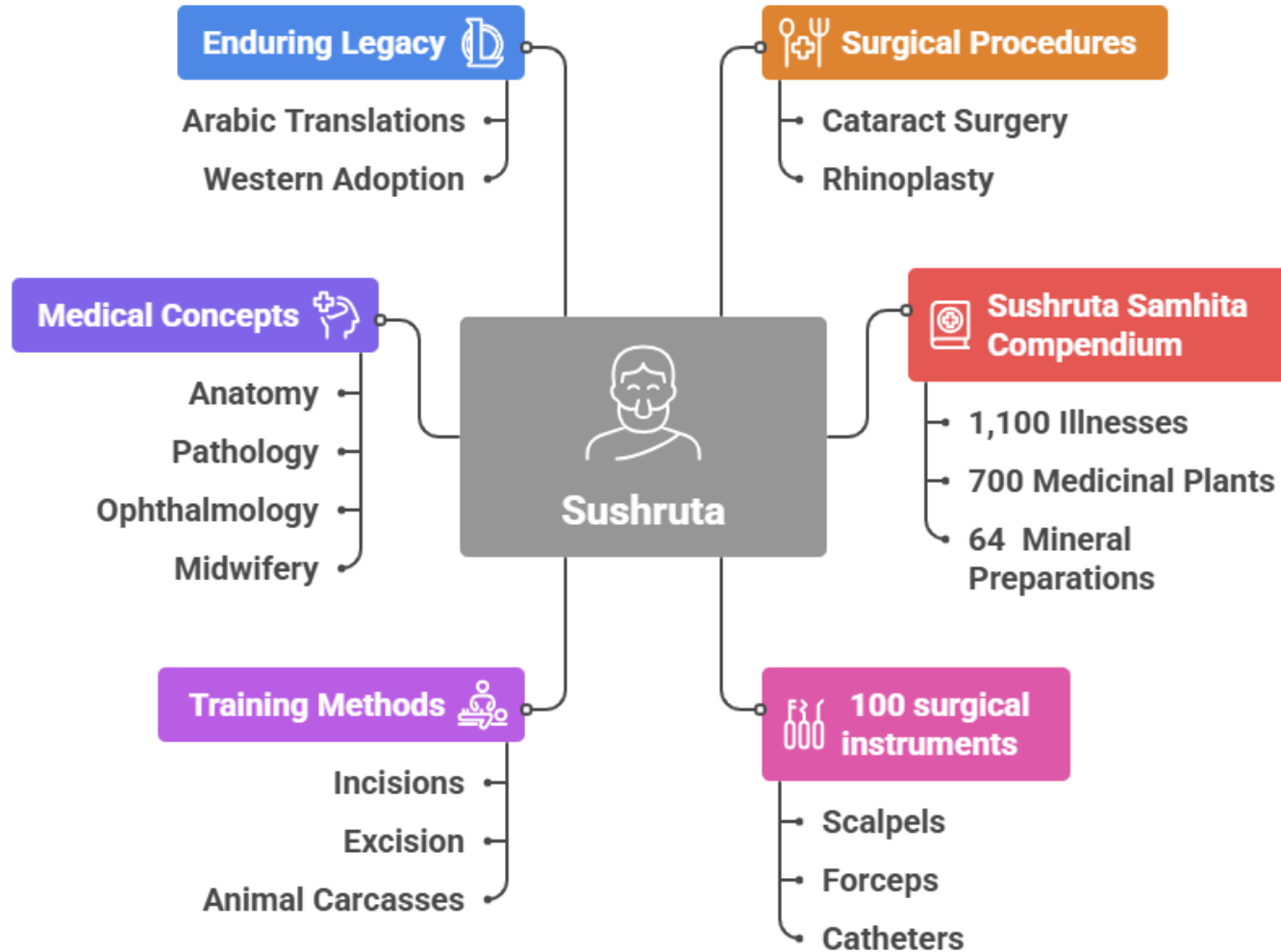


Define: Early Surgical Innovators

- **Sushruta (India, ~600 BCE):** father of surgery, and the "Father of Plastic Surgery" developed techniques for rhinoplasty.
- **Egyptian surgeons (c. 3000 BCE):** setting fractures, tumor excision, wound suturing.
- **Greek & Roman medicine:** Hippocrates, Galen influenced surgical knowledge.

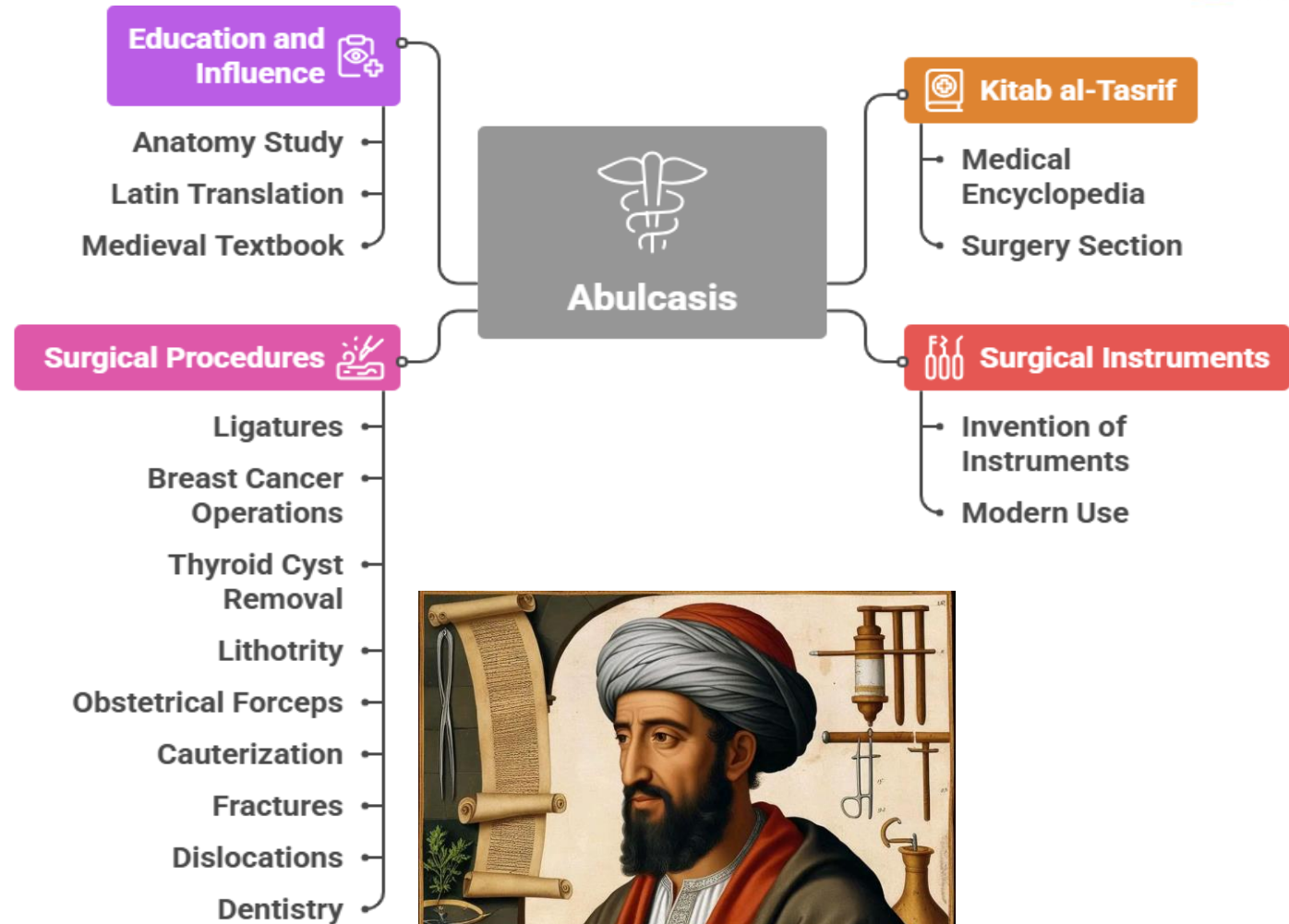


Sushruta's Contribution to Medicine & Surgery



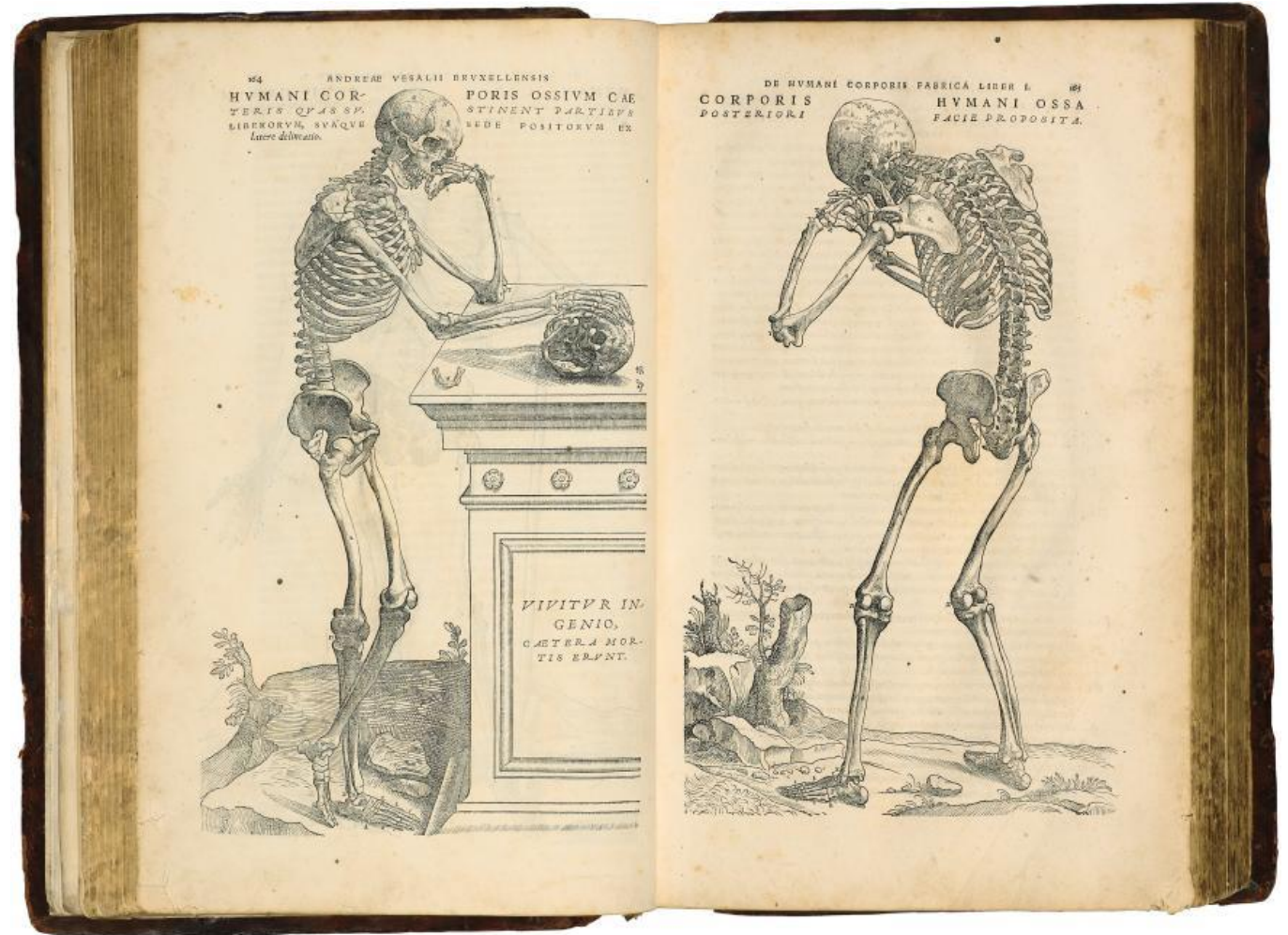
Ideate: Medieval and Islamic Advances

- **Abulcasis, 950:** a influential Spanish-Arab physician, surgeon, and pharmacist introduced new surgical instruments and textbook.
- **Paul of Aegina, Rogerius Salernitanus:** foundational European surgery texts.



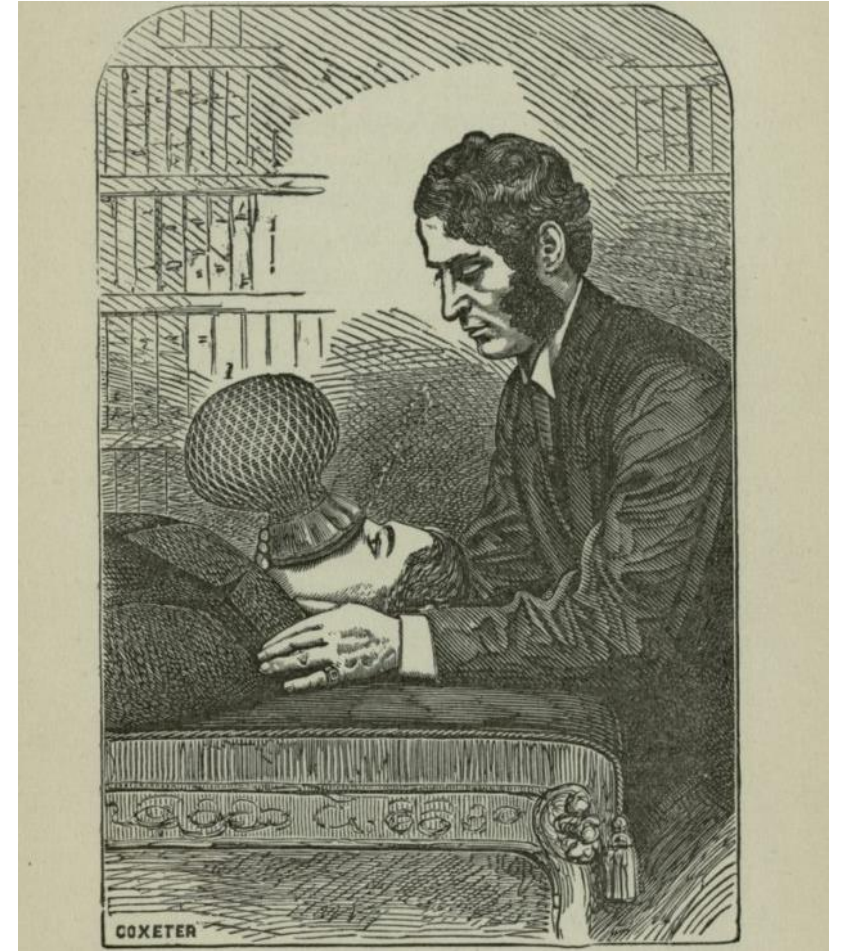
Ideate: Significant Advancement

- **Anatomy: Andreas Vesalius (1514–1564)**
“De humani corporis fabrica” revolutionized dissection and surgical learning.
- **Ambroise Paré (1510–1590):** improved wound treatment, introduced ligatures.

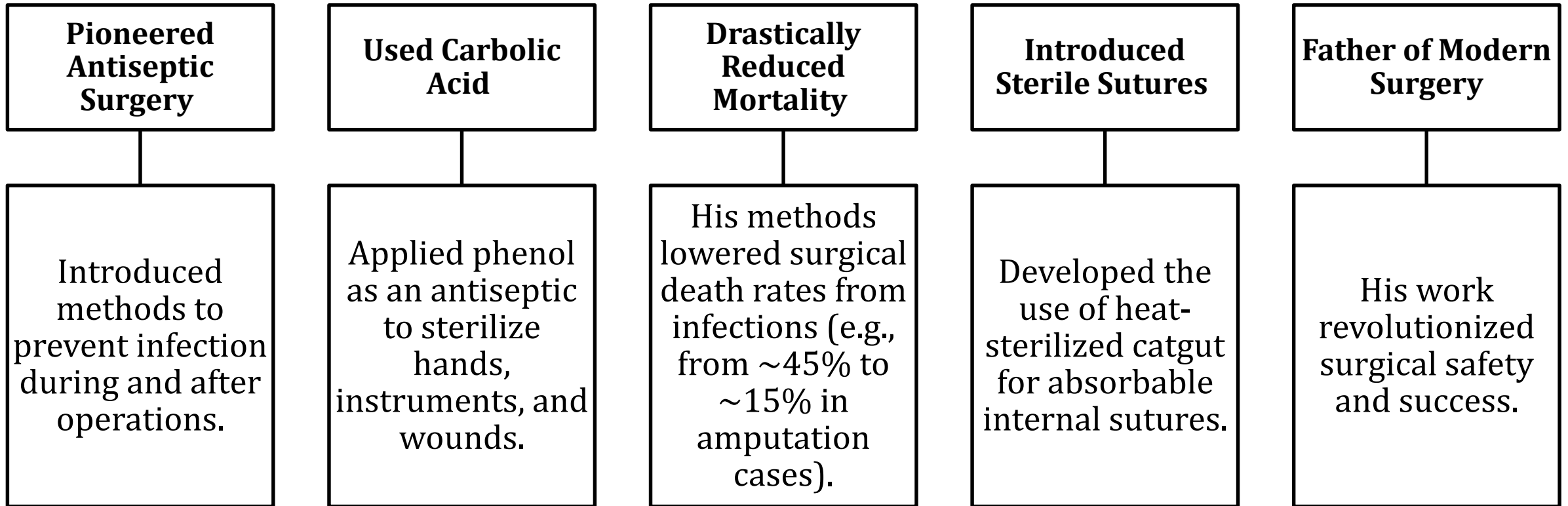


Prototype: Anesthesia and Antisepsis

In 1846, **William T. G. Morton** performed the first public demonstration of **surgical anesthesia** using ether on October 16 at Massachusetts General Hospital. This event, known as "**Ether Day**", was a landmark achievement that allowed for **pain-free surgery**



Prototype: Joseph Lister (1860s) Antisepsis



Prototype: Rise of Academic Surgery

- Development of surgical schools and standards.
- Barbers to trained surgeons: Surgery became respected medical specialty.



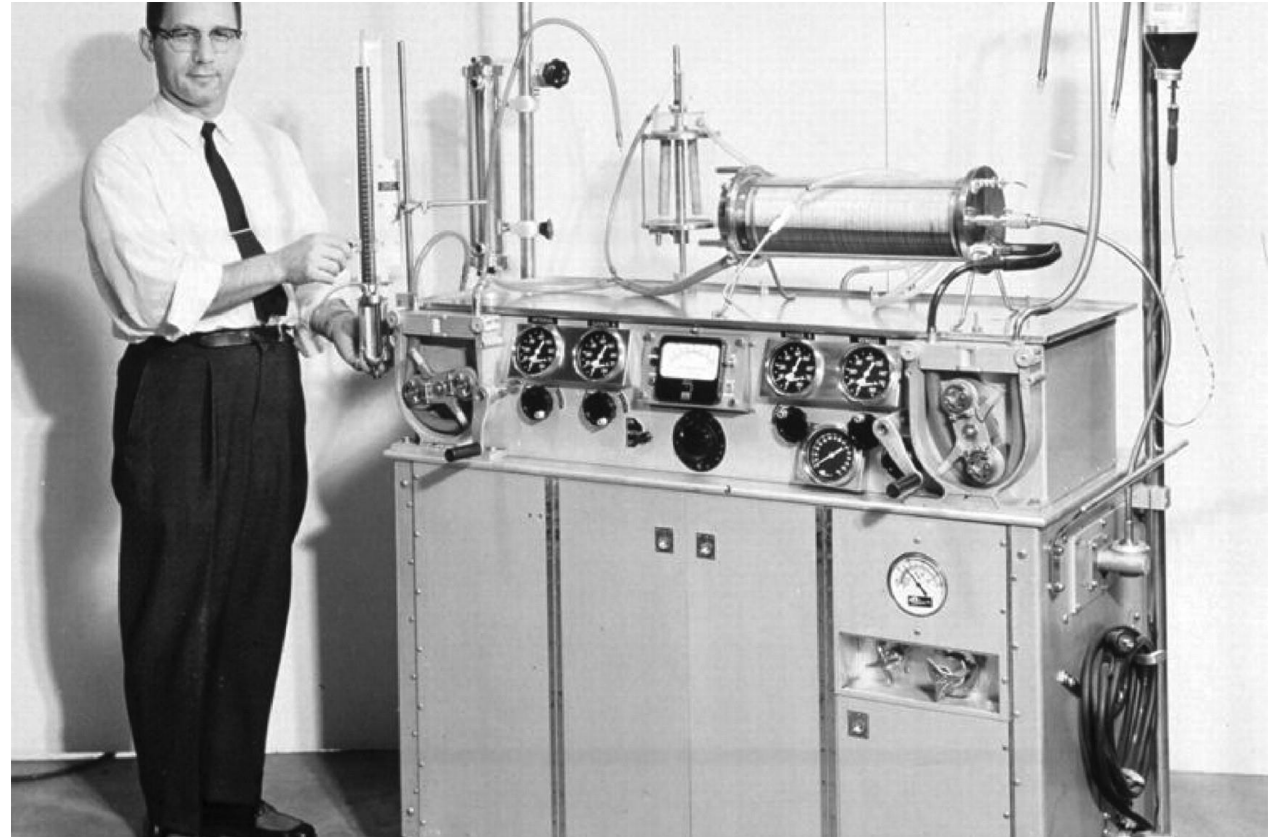
Ideate: 19th & Early 20th Century Innovations

- **X-rays discovered Wilhelm Conrad Röntgen (1895):** revolutionized diagnosis and surgical planning.
- First successful heart surgery (1893), blood transfusion (1914), organ transplant (1954).



Prototype: Modern Surgical Milestones

- Heart-lung machine & open-heart surgery (1950s).
- Coronary artery bypass, hip and knee replacements (1960s).
- Heart transplant by Christiaan Barnard (1967).



Test: Minimally Invasive and Robotic Surgery

- Laparoscopy, endoscopy (1980s–1990s).
- Robotic surgery: da Vinci System (2000), remote robotic operations.

Contemporary Surgical Practice

- Multidisciplinary care, advanced imaging, personalized surgery.
- Stem cell therapy, 3D printing for implants, artificial organs.



Reflect: Summary and Future Directions

- From ancient trepanation to robotics and AI: relentless innovation.
- Surgery today safer, more precise, and less invasive.
- Future: Augmented reality, gene editing, personalized therapies.



References

- <https://neigrihms.gov.in/images/Central%20Library/Library%20Books%20and%20Print%20Journal/updates%20as%20on%20Nov%2024/GENERAL%20SURGERY.pdf>
- <https://nmji.in/the-palgrave-handbook-of-the-history-of-surgery/>
- <https://pmc.ncbi.nlm.nih.gov/articles/PMC2871217/>

THANK YOU