

The Miracle of Anesthesia – I

Lead: The practice of surgery was a brutal affair and lagged behind other sciences because people could not stand the pain.

Intro.: *A Moment in Time* with Dan Roberts.

Content: The scientific revolution kicked into high gear during the years between 1500 and 1800. Galileo popularized the work of Copernicus the Polish scholar who insisted that the sun rather than the earth lay at the center of the solar system.

William Harvey described the circulation of blood and Sir Isaac Newton, one of history's greatest thinkers, gave the universe a philosophical order and contributed to the development of calculus and higher mathematics. Botany, biology, and chemistry also enjoyed a time of advancement and new fields related to medicine, including bacteriology and nutritional science, emerged from this period of intellectual ferment. However, the practice of surgery lagged far behind its companion sciences. There could be little regular exploration or cure of diseased living human flesh until there was invented an effective pain killer. Most people would rather bear the illness or die

than endure the torment associated with a surgical cure.

Scientists tried nearly everything. In the 1770s Mesmerism, later called hypnotism, was used in some patients to induce a pain-numbing trance, but that and various narcotics such as opium, hemlock, and other ancient concoctions worked sometimes on some people, but were too inconsistent to be of much use. Most of the time patients, or better said, victims, drank as much liquor as they could and stoically gave themselves over to the surgeon.

So horrible were these primitive procedures that operating rooms

were built high in towers so that people could not hear the screams. Leather straps and brawny surgical assistants were required to hold down the sick person. The patient watched with only minor sedation and often fascinated curiosity as the surgeon rammed the saw through the muscle of the diseased limb, blood spurting in all directions, and listened to the steel teeth as they played their tune on suddenly very tender bone tissue. The memory of this excruciating trauma often faded away, many times it did not.

The practice of surgery was clearly necessary, often continued life depended on it, but no serious

progress would come until a way of dealing with the pain was discovered. Happily the solution was at hand, and in 1846 a chemical previously considered of little use save to entertain and amuse, became the miracle of anesthesia. Next time: the laughing stops.

At the University of Richmond, this is Dan Roberts.

Resources

Fenster, J.M. "How Nobody Invented Anesthesia," *American Heritage of Invention and Technology* 12 (1, Summer 1996):www.inventionandtech.com/content/how-nobody-invented-anesthesia-1.

Pernick, Martin S. *A Calculus of Suffering: Pain, Professionalism, and Anesthesia in Nineteenth-Century America*. New York, NY: Columbia University Press, 1985.

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