

James Young Simpson (1811–1870)

James Young Simpson was one of the first obstetricians to administer anesthesia during childbirth in nineteenth century Scotland. Before his work in the 1800s, physicians had few ways to reduce the pain of childbirth. Simpson experimented with the use of ether and chloroform, both gaseous chemicals, to temporarily relieve pain. He found that those chemicals both successfully inhibited the pain women felt during childbirth and pain during other surgeries. Patients under the influence of chloroform fell asleep and were unaware of the intense pain of childbirth. Simpson's work was not popular for a variety of reasons, and the major claim against his practice being that pregnant women should not receive a form of pain relief during labor and childbirth. Against common beliefs at the time, Simpson advocated in favor of using anesthetics for pain-free labor, which later became the standard for surgical procedures and childbirth.

James Young Simpson was born on 7 June 1811 in Bathgate, Linlithgowshire, Scotland. He was the eighth child and seventh son of farmers Mary Jervay and David Simpson. In addition to being a farmer, Simpson's father was the village baker. At the age of four, Simpson attended a local school in Bathgate. According to Simpson's daughter, Eve Simpson, Simpson impressed both his family and teachers with his intelligence and memory.

In 1825, at the age of fourteen, Simpson enrolled at Edinburgh University in Edinburgh, Scotland, to study the arts and humanities. He studied the classic Latin and Greek works and develop fine writing skills, which assisted him as a lecturer later in life. Two years after beginning at Edinburgh University, Simpson switched to medical studies under the mentorship of Robert Liston, a surgeon and lecturer at the university. Simpson graduated three years later in 1830, just before his nineteenth birthday. However, he was still too young to take that diploma and become a practicing physician.

Simpson returned to college at Edinburgh University in 1831 to study at leisure while waiting to be awarded his degree. In 1832, Simpson wrote a thesis on deaths caused by inflammation titled "De Causa Mortis In Duibusdam Inflammationibus Proxima" (Of the Immediate Cause of Death in Certain Inflammations). According to Simpson's daughter, Simpson's thesis caught the attention of a professor of pathology in Edinburgh, John Thompson, who offered Simpson a position as his assistant surgeon and suggested a career in obstetrics. Simpson took Thompson's recommendation and began studying in obstetrics.

Simpson held many honorary positions during his early career in obstetrics. He was elected president of the Royal Medical Society of Edinburgh in November 1835, and he gave an acceptance paper titled "Pathological Observations on the Diseases of the Placenta: Congestion and Inflammation," which described his studies on placental diseases. Such diseases included ruptured blood vessels in the placenta and fatal detachment from the placenta. Simpson then was elected a Fellow of the Edinburgh College of Physicians in 1836. That same year, Simpson married Jessie Grindlay.

In November 1839, at twenty-eight, Simpson applied for the recently vacated Chair of Midwifery for the city of Edinburgh, Scotland. He printed testimonials and letters from his medical friends to advertise his scientific achievements in an attempt to overcome what some saw as the inexperience of youth. On 4 February 1840, winning by one vote over his competitor, Simpson was elected as Chair of Midwifery.

As Chair of Midwifery, Simpson gave a number of lectures at Edinburgh University on midwifery and the diseases affecting women and children. While serving as chair, he remained a general practitioner, yet attracted mostly female patients due to his specialty as an obstetrician. While still

actively practicing medicine, Simpson also managed a family life. Simpson and his wife had their first child, Margaret, in 1840, followed by David in 1842, Walter in 1843, and Eve in 1855. Their first daughter died at the age of four due to an illness. According to Henry Gordon, a medical doctor and historian, Simpson loved to talk about her, even long after her death. In 1845, Simpson purchased his own house at No. 52 Queen Street, where he continued to see his patients in the following years. In 1847, when Simpson was thirty-six, the Queen of Scotland entrusted him with the post of Physician to Her Majesty. Simpson accepted the position, and held the title Physician Accoucheur (male midwife) to the Queen of Scotland until his death.

In December 1846, news from London reached Simpson about the successful use of nitrous oxide, commonly called ether, as an anesthetic agent. Ether is a gaseous chemical that numbs the senses, including pain, when inhaled. On 19 January 1847, Simpson introduced ether anesthesia into obstetrics. He initially used ether for pain relief when surgically intervening during childbirth, but eventually employed it for normal labor as well. Before Simpson began to encourage employment of anesthetics, physicians rarely provided a source of pain relief during surgical procedures because few painkillers existed. The patients under operation were simply held down by three or four of the surgeon's assistants and left in pain. According to Gordon, Simpson had long wished to find some way to prevent patient suffering on the operating table.

After some time using ether as an anesthetic during 1847, Simpson found the drug to be problematic. It was slow to stimulate pain relief and sometimes irritated the patient's lungs. Simpson experimented with several other chemicals but was not satisfied with his results. In 1847, he received a suggestion from David Waldie, a chemist from Liverpool, England, to test the gaseous chemical chloroform. Simpson tested chloroform on a patient as an anesthetic in November 1847. Two weeks later, he published "Account of a New Anaesthetic Agent as a Substitute for Sulfuric Ether in Surgery and Midwifery" on chloroform's clinical use in midwifery and surgery. Simpson was the first to coin the term local anesthesia.

After Simpson began using chloroform as a safer and more effective anesthetic than ether during the late 1840s, many criticized its use. Individuals objected to the use of chloroform in obstetrics for medical, moral, and religious reasons. Medically, from 1848 onwards, physicians reported numerous accounts of healthy patients dying under the use of chloroform and thus they proclaimed it unsafe. Simpson rebutted that improper administration of chloroform was to blame, not the drug itself. Other individuals protested the use of chloroform in midwifery because they saw the pains associated with labor as beneficial to birthing. Simpson countered by demonstrating that diminishing pain hastened the birth-giving process and led to healthier recoveries. Religiously, other individuals referenced the book of Genesis and Eve's original sin as justification for the pain women experience during labor and childbirth. According to Gordon, Simpson was a devout man himself, and he gave an analysis of the original Hebrew text to refute that argument. Simpson noted that the Hebrew word for 'sorrow,' referring to women's suffering during childbirth, was translated as the same meaning for two different Hebrew words. One of those words was used to describe the literal labor women exert and the other to describe the associated pain. Therefore, Simpson demonstrated that the religious argument against utilizing pain relief during labor was based on the word for pain, an incorrect interpretation of the religious text.

In his later years, Simpson was highly recognized for his achievements. In 1850, Simpson was offered membership to the staff of the Edinburgh Royal Infirmary in Edinburgh, Scotland. He was awarded the Order of St. Olaf by the King of Sweden, the Monthyon Prize of the French Academy of Medicine, and honorary doctorates from the University of Oxford in Oxford, England, and the University of Dublin in Dublin, Ireland. Simpson was made first baronet in 1866, which gave him the prefix sir. In 1869, he was granted the Freedom of the City of Edinburgh, the nineteenth century equivalent of being awarded the Key to the City. A statue was built in Simpson's honor on Princess Street in Edinburgh, Scotland, and Alexander Simpson, his nephew, became the Professor of Midwifery at Edinburgh University after his uncle.

Simpson died surrounded by his family in his home, No. 52 Queen Street on 6 May 1870 following heart complications.

Sources

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