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An Early History of Anesthesia in Labor

Mary E. Gibson

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ABSTRACT

Fear of pain often overshadows childbirth, and each woman must decide whether to receive anesthesia to combat labor pain. Historically, this choice resulted in unintended consequences and marked the beginnings of medical interventions in labor and birth. The purpose of this article is to trace the use of anesthesia in childbirth from the mid-19th to the mid-20th centuries and to explore its influence on childbearing women and nurses.

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Fear of pain has overshadowed the experience of childbirth for millennia, and a woman's approach to the prospect of birth has much to do with her own perspective, the perspectives of her peers, and her environment. Contrary to the belief that in their attempts to dominate birth rooms, physicians began the push toward the use of anesthesia in childbirth, in this article I argue that this move was initiated by the desire of women to give birth without pain. Paradoxically, when women chose to relieve labor pain, they lost control in the birth chamber.

Physicians began to enter the birth room in women's homes in the late 18th century. One hundred years later, amid enormous intervening societal change in the first half of the 20th century, the site of birth changed from the home to the hospital. Childbearing women welcomed this change and embraced pain relief in labor and the introduction of medical science and technology into the process of birth. Their choices generated consequences that have influenced childbearing women to this day and unintentionally led to a medical model of care. In this historical perspective, I address the development of obstetric anesthesia and illustrate the intersection of the scientific and the social aspects of childbirth.

Childbirth in Early America

Before the 20th century, most women relied on their neighbors and local midwives for assistance during birth, and these attendants oversaw the birth process. Laurel Thatcher Ulrich (1990) annotated the diary of the midwife, Martha Ballard, who lived in rural Maine during the late 18th century and noted the following:

> Midwives and nurses mediated the mysteries of birth, procreation, illness and death. They touched the untouchable, handled excrement and vomit as well as milk, swaddled the dead as well as the newborn. They brewed medicines from plants and roots and presided over neighborhood gatherings of women. (p. 47)

When privileged women began to invite male physicians into their birth rooms, their attendants remained integral to the birth process, and the physicians had to win their approval and enlist their cooperation (Leavitt, 1983). Most women gave birth at home with midwives and friends in attendance. Only women who could afford the ministrations of doctors or destitute women who came to almshouses might have had the assistance of physicians. Although specialty of obstetrics was not yet established, some physicians were especially interested in childbirth (Kass, 1993).

Boston's Walter Channing was one such physician. His practice began in 1811 after graduation from Harvard College and University of Pennsylvania Medical School and additional study of midwifery in England and Scotland. Just as Martha Ballard recorded the experience of a midwife during this era, Channing recorded the first 11 years of his obstetric practice and created a window into the physician-attended lying-in chamber. Channing preferred to let nature take its

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course during birth, but in his logbook he documented purging, bleeding, and the use of leeches, which were common practices of the time for specific conditions (Kass, 1993; Siddall, 1980). Medical professor Benjamin Rush, who likely taught Channing at the University of Pennsylvania, suggested that "blood-letting might be effectual in lessening the violence of the disease and pains of parturition" (Rucker, 1950, p. 101). Bloodletting was a quick and sure way to achieve relaxation, which physicians thought would facilitate birth. Another Philadelphia professor admitted that physicians "must do something" and could not remain only spectators in the birth process (Leavitt, 1983, p. 286). Bleeding, forceps, and opium constituted the armamentarium available to these physicians (Duffy, 1964; Leavitt, 1983).

Early Anesthetics

For centuries, a wide array of substances was used to relieve pain during labor, including opiates, sleeping draughts, alcohol, and herbs (Morrison, Wildsmith, & Ostheimer, 1996). Even extracts of mandrake and henbane from the plant family of nightshades (Solanaceae) may have been used in labor. These plants contain the powerful alkaloid hyoscine (from which scopolamine is derived), which functions as a hallucinogenic, sedative, and amnesic. From the time of the early Greeks, these substances were used as anesthetics and may also have had some applications in childbirth, although their toxic effects when used in excess were well known by the 19th century. In fact, laudanum and other opium products were ultimately preferred because of the associated toxicity and danger of the nightshades (Carter, 1996, 2003; Goldberg, 2014; Leake, 1925).

In 1799, the mother of Sally Drinker, a prominent woman in America, recorded her daughter's labor in her diary. The birth was supervised by Dr. William Shippen:

> Sally was all night in great distress… [She] had two smart… pains while the bleeder was there… she has taken 80 or 90 drops of liquid laudanum during the day and night but has not had many minuits sleep for 48 hours. (Warner & Tighe, 2001, p. 59)

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On the other hand, in her diary from the same period, midwife Martha Ballard frowned upon the use of laudanum in normal labor and suggested that it negatively influenced the pains if they were regular (Ulrich, 1990).

Ether and Chloroform

In the mid-19th century, new and effective pain relievers were brought to labor rooms, but their safety was unproven. The first inhaled anesthetic to come into obstetric use was diethyl ether. Ether was discovered in 1540 but was not fully recognized as an anesthetic until 1842, when Crawford Long, a University of Pennsylvania medical graduate practicing medicine in Georgia, used it for a surgical procedure to remove a patient's tumor (Leake, 1925). Long, who did not publish a description of his use of the drug for anesthesia until 1853, did not receive credit. Instead, dentist William Morton demonstrated ether's anesthetic properties in Boston in October of 1846 during the surgical removal of tumor on a man's neck by a well-known Harvard surgeon. Morton received recognition as the first to administer ether for an operation (Caton, 1999), and news of the success of the use of ether for anesthesia spread rapidly.

Dr. Nathan Cooley Keep, the dentist who had apprenticed William Morton in his Boston laboratory, described successful use of ether and the device he invented for its administration in an article published in the *Boston Medical Surgical Journal* (Guralnick & Kaban, 2011; Keep, 1847a). One week later, in the same journal he reported on the successful administration of the "vapor of ether in a case of natural labor" (Keep, 1847b, p. 226). Fanny Appleton Longfellow, wife of Henry Wadsworth Longfellow, received ether during the birth of her third child in 1847 and wrote the following in her diary:

> I was never better nor got through a confinement so comfortably… Henry's faith gave me courage and I had heard such a thing had succeeded abroad, where the surgeons extend this great blessing much more boldly and universally than our timid doctors. Two other ladies I know have since followed my example successfully, and I feel proud to be the pioneer to less suffering for poor, weak womankind. This is certainly the greatest blessing of this age and I am glad to have lived at the time of its coming. (Wagenknecht, 1956, pp. 129–130)

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