AN INAUGURAL DISSERTATION
ON
Chloroformization in Midwifery

SUBMITTED TO THE
PRESIDENT, BOARD OF TRUSTEES AND MEDICAL FACULTY
OF THE
University of Nashville,
FOR THE DEGREE OF
DOCTOR OF MEDICINE.

BY
Thomas A. Wright

OF
Alabama

March 12th, 1857

JOHN YORK & CO.,
BOOKSELLERS AND STATIONERS,
NASHVILLE, TENN.
Chloroformization in Midwifery.

Few discoveries are to be found within the pages of medical history that has caused so much discrepancy among writers and a no less confusion in this and other medical republics among practicing physicians. Professor Simpson of Edinburgh was the first to test its anaesthetic virtue, and it appears from what writers say, that he had been convinced for some time that there existed a superior anaesthetic to sulphuric ether. In May, 1845, Professor Simpson, after experimenting with several anaesthetic agents, in order to discover a substitute for ether, tried chloroform by
inhalation, and having found its effects favorable, brought it forward as a new remedy for pain in Midwifery & Surgery.

The advantages chloroform has over ether says Professor Miller of Edinburgh is very obvious. The odor is much preferable; no inhaling machinery is required; there is little or no stimulation of the air passages; no cough in inspirating, no mucous secretion; no risk to the lungs! The effects are more speedy and thorough, the transition more satisfactory! The after effects are free from hazard, and almost from discomfort; the quantity employed is considerably less.
depends upon the purity of the chloroform, Prof. Eve says, "drop a few drops of chloroform into a tumbler of water, and if the chloroform sinks to the bottom in the form of shot, the article is apt to be pure." Professor Miller says, "the more pure the chloroform the more bland and speedy its influence. When inspi-ration seems to be produced in the air passages, the patient coughs, and is unwilling to inspire the vapor; when becoming stupid, muscular excitement is apt to be troublesome, and tendency to talk may be very marked; after recovery there is stiffness, probably vomiting, and the nausea
is likely to prove of prolonged duration. Pure chloroform in the
contrary does not irritate the air
passages, and is much less liable
to cause vomiting; the patient
breathes it readily, sometimes
greedily, enjoying its fragrance
and sweetness very much, muscular
excitement does not always occur
and when it does, proves both
manageable and transient; the
patient seldom speaks, or
attempts to do so, before the
flush; this arrives speedily,
and is of a less apoplectic
look; emergence is calm; and
all disagreeable consequences
are of rare occurrence."

The proper mode
of administering chloroform has caused a display of the ingenuity of some deep thinking medical philosophers, but now it is generally agreed that we shall abolish the use of all machinery or mechanical contrivances in the administration of chloroform and use no apparatus save those of the most simple kind. With an inhaler it is easy to suffocate the patient; without one, it is not very easy to avoid the admission of a considerable amount of atmospheric air along with the vapors of chloroform—an amount quite sufficient to arrest asphyxia.
a common pocket handkerchief, a piece of lint, a towel or sponge or anything that admits of the vapor of chloroform being brought in contact or proximity with the mouth and nostrils, and yet sufficiently porous to allow the free admixture of atmospheric air with its vapor.

The lint, sponge or handkerchief should be arranged in a conical shape, the concavity of which must be large enough to hold or cover the mouth and nose. This should be saturated with pure chloroform, in a quantity not yet determined, for high authorities disagree as to the amount to be inhaled. Prof. Simpson's rule is as
discreet as any, and he proceeds gently and cautiously, beginning with a small quantity and increasing the dose until the wanted effects are obtained. Some surgeons commence with a drop, others with a drip, but Prof. Miller asserts that he is governed more by the effect than by the quantity administered. Having the proper apparatus and pure chloroform, we should commence with a drop or more or less, being governed by the age, strength, or any previously ascertained idiosyncrasy or peculiarity of constitution. The inhaling apparatus should not come in direct contact with the patient's mouth and nose for the first two or three inhalations.
No one could think of doubting the expediency of the administration of chloroform, being skillful and well acquainted with all the phenomena peculiar to chloroformization, for as Professor Bichat says, "nothing embroils the surgeon more than to fear the proper administration of chloroform during the operation; or being ignorant of its effects, he might administer too large a dose, and produce fatal asphyxia, and the surgeon or operator be held responsible for the ignorance of the administration."

The inhalation of chloroform was, according to the best authorities, the following effects upon the system: the rapid production of
coma, relaxation of the muscles, slow and often stertorous breathing, and in some, upturning of the eyes, and total insensibility to "agents which ordinarily produce pain." The heart is variably affected—owing to the existence or the nonexistence of disease of its structure. Foaming or frothing of the mouth sometimes takes place and cep frequently—convulsive movements of the muscles of the face and limbs. Anaesthesia is usually produced in one or two minutes, though it may vary from ten seconds to five minutes; dependent entirely upon the susceptibility of the patient, and its effects continue about ten minutes. Dexterously and cautiously
administered it may keep the patient anaesthetized for several hours, or one or two days. The immediate effects of the agent are succeeded by drowsiness; sometimes by quiet sleep. Patients generally have no recollection of what has transpired during this state of insensibility, and after being apprised that they have had an operation performed upon them, display much incredulity. Others again preserve their consciousness and yet suffer no pain from the severest operation.

We ascertained that the patient is properly anaesthetized by pricking or pinching him and interrogating
him, and if he notices not, or answers incoherently, we are then satisfied that the agent has had its desired effect. I find it stated in The U.S. Dispensatory that the patient should be chloroformed to insensibility, but not to the abolition of consciousness, and others again advise that stertorous breathing contraindicates its further administration.

Muscular excitement, Prof. Miller informs, does not prove that chloroform is unsuitable, but is an indication that more of the agent should be administered. Though the same author has observed that this muscular excitement is more obstinate after the administration of morphine
chloroform then when the pure article has been employed, and considers the amount of muscular excitement a test for the purity of the chloroform. If the patient remains too long anaesthetised or falls into a state of syncope, we should not give him fluids, for fear they might gain admittance into the esophagus and not pass down the esophagus. As restoratives funnel atmospheric air into the face, dragging out the tongue so as to facilitate breathing, the induction of artificial respiration by strongly compressing the walls of the thorax, the application of ammonia to the nostrils as also dashing cold water
upon the face and breast.

The anaesthetic effect of chloroform has been and
is now a mosted point, and no
doubt irration has been—
practised by the partisans of
either side; the one taping
exaggerated encomiums, the other
[the opponents] are conscientious,
prejudice, and blind to the
utility of the agent, and would
hold one criminal of guilt
of its administration.

I oppose the
use of chloroform in normal
cases of labour. 2dly because I think
nature competent to conduct the
participant through the dangers
of parturition. 2dly I believe with
Prove that "Labour is the culminating point of the female somatic forces." The amount of time that the patient is actually in pain as computed by Dr. Meigs is too inconsiderable to justify such potent interference.

Being stereotyped in the opinion that to interfere or tamper with nature's physiological laws [and labour being undoubtedly one of those laws] is often a cause of disease and at any rate, not accelerating natural physiological works.

Anaesthesia deprives the parturient of the auxiliary influences, brought about by the contraction of the abdominal muscles.
and Dr. Meigs asserts that it depends on the force and frequence of the labour pains. Lastly it is acknowledged by chloroform, strongest advocates that unless great care be used it will cause the instantaneous death of those who inhale it; and I am also convinced that chloroform has caused the instantaneous death of patients, both in Midwifery & Surgery. Writers have opposed it in a moral point of view; this I think, a feigned or artificial modesty, and others no less absurd contend that it is ordained by God himself that women should have pain and trouble in labour. Although I give full credence
to the Teachings of the Bible, yet I listen not to the arguments of such superstitious writers, who condemn the use of chloroform and then are always found with their pockets full of morphine.

I should feel myself amenable to no ill conduct for using chloroform in distempers, lingering or harassing labours, the pains and suffering from which are extreme, for anaesthetics in such cases afford refreshing sleep and permit the powers of the system to recover with out materially interfering with the labour.

Chloroformization would be indicated
in all reverse positions of the head, where the occiput or vertex, instead of passing out under the symphysis pubis glides over the whole sacro-conjugate curve and soft parts. This agent in such cases relieves the parts, diminishes suffering, and hastens delivery.

For puerperous patients, the different stages having been tedious and long, it frequently occurs, when the head reaches the outlet, that the woman, exhausted by previous suffering, is melancholy and despondent, and the perineum, by its resistance throtters to portray the labour. Chloroform
under such circumstances would almost insure immediate relief
in forces and all instrumental delivery; especially empyotomy. for chloroform prevents the mother from appreciating the terrible rep of the operation performed upon her offspring.
In all cases of turning, and more especially in those, where the waters have escaped for sometime, and the uterus firmly contracted upon the fetus, to such an extent as to prevent all operation being performed, until relaxation of the parts shall have taken place. Chloroform we an
informed acts admirably in such cases and renders futile resection.
The opponents to chloroform think it contraindicated in all hysterical convulsions, but I should employ it in cases where muscular excitability interfered with the progress of labour.

If the parturient failed to discharge the placenta after the delivery of her child and much difficulty obtained in its extraction, I should give her chloroform.

Thomas A. Knight

January 21st, 1857