OBSTETRICS

XI.

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A TREATISE ON OBSTETRICS

By

Kathryn Goodpasture.

INTRODUCTION

"To overthrow superstition, to protect mother-hood from pain, to free child-hood from sickness to bring health mankind;

"These are the ends for which, through the centuries, the scholars, heroes, prophets, saints and martyrs of medical science have worked and fought and died". ---

Yandel Henderson

With the origin of the human race "obstetrics" had its beginning. At what time it is not known, for there was no means of recording observations and experiences. Man is said to have talked as soon as he was able to walk upon his hind legs. One Geoffery Parsons has pictured him as a "Hairy being standing upright, partly with his hands, partly with his tongue, uttering the first and greatest of human inventions--a word."

The first records in reference to obstetrics were recorded by the Egyptians about 5000 B.C. and even though very brief it shows that at that time civilization had begun to advance and so on down through civilization obstetrics has made its advancement up to the present date--being considered one of the most important branches of the medical profession.

Through this great advancement the "Mothers" of the world have paid their price. It has been said "in sorrow shalt thou bring forth children" and very little was done to make their suffering easier. They have made it possible and through the study and work of many great men to make it a safer and easier motherhood.

With these few facts in mind, I will endeavor to tell a short, but eventful, history of the Art of Obstetrics which comes from the Latin word "ob" and "stow" meaning to stand before and to protect and another definition being--"The science of

aiding the parturient or person in labor."

Chapter I

ANATOMY

The first reliable steps made in the field of human anatomy was 1500 A.D. but due to the fact that the dissection of the human body was prohibited by the church and universities, lower animals were the means from which the early Anatomists, such as Hippocrates, 400 B.C., drew their conclusions. These conclusions were accepted for hundreds of years even though untrue as we can readily see from an illustration by Hippocrates, "The uterus was double, and like a double-barrelled gun discharged male fetuses from the right, female from the left barrel; that the fetus sat placidly on the brim of the pelvis and then took a header into the new element of the outer world; that its time of waiting was spent, amongst other things, in learning the art of sucking, for how otherwise could it do so intelligently from the first?"

Saranus of Ephesus who lived in the 2nd century A.D. was the first one to describe the pelvic organs, but being lost during the middle ages were not revived until the 16th century when its study became more pronounced.

In 1595 A.D. Mercurio in Italy, made a study of the pelvis, describing its deformities, and prescribing Caesarian Sections for these patients. About this same time there was a man named Versalius who was of a very determined nature, and all civil and eccleseastical laws so as to further his investigations. He even went so far as to rob the graves to obtain material to work with. However he was very short-lived, being imprisoned, and sent to the Holy Land and on his way being ship wrecked. However he left to the world his work

"On the Fabric of the Human Body" and has become a saint and benefactor of modern medicine.

Even though the observations of Versalius were somewhat elementary, they were accurate, and other great men were able to take further steps. In 1651 William Harvey worked out the theory of fetal circulation and development of the human ovum, which later was studied anatomically by William Hunter. Harvey also worked the theory of the human ovum. Hunter is chiefly known, however, for his great work on the gravid uterus, in which he gives excellent dessections of the fetus in utero, the musculature of the uterus and relationship of the decidua.

The next step was taken by Hendrik Van Deventer in 1701 who is called the father of modern midwifery, studied the various forms of the contracted pelvis and the mechanics of labor and whose work remained authoratative for about 150 years until further elaborated on by Enge Becken of Michaelis.

Then in 1752 William Smellie of England studied the normal mechanisms of labor, described the occiput posterior positions and later with the help of Baudeloqui improved the methods of measuring the pelvis. This is only a brief sketch of the great discoveries made up until the 18th century, but from this time on things were easier. The men in the future had the background to work from and to make more elaborations to discoveries. So now let us consider the child from its very beginning.

William Harvey said, "All life comes from the cell", and further investigators have proven it quite true and also other ancient investigators believed that the complete individual lay within this small cell; that all parts of the body were contained within the ovum, and that the further developments were the unfolding of these parts.

A woman's reproductive organs consist of the uterus, Fallopian tubes and the ovaries, taking into onsideration also that the other organs of the pelvis play a passive part.

The first thing to be considered is fertilization of the ovum by the spermatazoan of the male. With the fusion of these two, life begins. This fertilized egg then implants itself in the side of the uterus, where it continues to grow and becomes more firmly attached by means of the placenta. Membranes develop and surround the fetus and which later contain a clear fluid in which it swims and lives, and to give freedom of movements for the growing body and limbs. It is also a means of protection from injury and sudden changes of temperature. The placenta is the means of nourishment for the growing child within. It takes oxygen and blood together with nourishing foods from the mother through the umbilical cord that is attached to the fetus.

So--this fetus continues to grow for nine whole months, when the onset labor--the contractions of the uterus and great pain, the cause of which is not known. Labor is divided into three stages: 1. Opening of the mouth of the uterus. 2. Ends with the delivery of the child. 3. Begins with the birth of the baby and the expulsion of the placenta. Thus all discomfort comes to an end, so to speak, and the mother rests with the consciousness of having performed her allotted task.

Chapter II

HISTORICAL BACK GROUND

The art of caring for the child-bearing woman has since the beginning been accepted as a natural process and the care of these women fell into the hands of friends and family, namely the women. As time went on, women became through their experience, very expert and in turn taught other women. These women became known as midwives. (An Anglo Saxon word derived from "mid" meaning with and wife--meaning "one with wife").

Some of these women who took up the care of the sick as well as maternity, either as a nurse or midwife, were women of culture and of high social standing. Such as Aphasia, who lived at the time of Hippocrates, and was noted for her knowledge of maternity and diseases of women. Fabiola, a Roman lady 300 A.D., who made a home for the care of the sick, and Trotula, a very well educated woman of Saberno who was noted for her knowledge and writings on maternity and for her work on "Diseases of Women, Before, During and After Delivery," in which is found the first reference made to perineorrhaphy (suturing of the perineum).

Obstetrics continued to be in the hands of women for thousands of years, beginning before the birth of Christ and continuing up to the time of Ambrose Pari 1550. The earliest records of any teaching being given to these women was from the book written by Loranus Ephesus 100 A.D. and followed by works and teachings of others such as Tortula, Roesslini 1513, Roff 1545 and Justine Sigmundin 1690.

The qualifications of the midwife were justly and I would say accurately made by Saranus. He said, "she should have a good memory, be ambitious and stick to her job, be of moral

conduct that she may be trusted; she must show good sense and be of strong constitution and have long, delicate fingers with short-trimmed nails. She must have theoretical and practical education in all fields of the healing art - be able to recognize symptoms in connection with the art. for she must be able to prescribe for her patients.

In early times the midwives were often assisted by priests in very abnormal cases. Hippocrates and his pupils studied the subject of midwifery, but were never called upon for aid unless the removal of a dead child was required.

It seems that from the beginning of midwifery there was a very great prejudice against male physicians. Dr. Wertt of Hamburg (1522) was burned alive, because he dressed himself as a woman and attended a case of labor for the purpose of study. Among other things we also find midwives referred to in the Bible. The Israelites were instructed by the king of Egypt.

"When ye do office of a midwife to the Hebrew Woman and see them upon the stool, if it be a son, then ye shall kill him, but if it be a daughter then shall she live. The stool referred to most likely being the "obstetrical stool" which was used by the patient during labor. As Rachel says, "She shall bear upon my knee" Genesis 30- 3--so the stool probably had its origination from some one sitting on some one's lap during labor.

The teaching of cleanliness was also of early origin--taught by the Jews in 1500 B.C. in the handling of maternity cases. In the centuries to come,however, it seems to be more or less in the back ground and most of the mortality in child birth was due to lack of cleanliness, the cause being infection with puerperal sepsis - as child bed fever. This continued and in medieval times it was very marked, the death rate very high. It was later brought to light, however, that these infections were carried by the persons who attended the maternity cases--carrying them from one to another. Years later Louis Pasteur placed these facts on a scientific basis.

Chapter III

CHILDBIRTH AMONG THE PRIMITIVES * BELIEFS AND SUPERSTITIONS

The races of primitive times lived under much the same conditions that prevail today amont uncivilized tribes. No doubt they had to acquire some knowledge of the process of child birth, at least the most essential facts:

1. Woman is impregnated.
2. Child grows inside her for nine months.
3. At the end of period, the process of labor begins, initiated by a set of pains.
4. Then child is extruded into the outer world.

The child is attached by means of a cord (umbilical cord) to a large flat piece of flesh (placenta), and after the actual birth of the child the expulsion from the mother of this placenta must occur. The umbilical cord must be severed, and in a few days the mother's breasts begin to discharge milk, after which meaning may occur gradually and then later the substitution of other foods.

Primitive man even knew the early signs of pregnancy in addition to these previous things. The time of birth was predicted from the time of the suspension of the menses as it is with us today.

The diseases of civilization were not known to them, such as rickets, etc.. so their pelves were roomy--their babies small and rarely in abnormal positions. Their deliveries were usually easy and quick. Dr. Choquette relates that an Indian mother never suffers more than an hours and has given the account of the following instance: "A body of Indians, men, women and children set out on a hunting trip on a cold winter day, one of the women allowing the party to proceed dismounted from her horse, spread a buffalo robe on the snow, gave birth to the child, which was immediately followed by the placenta. Then attending to everything as well as circumstances permitted, wrapped her child in a blanket, mounted her horse and overtook the party before they had noticed her absence."

Assistance in the expulsion of the placenta is universal. Most frequently aided by the use of abdominal belt. A surgeon of the U.S. Army once delivered a Sioux squaw and the moment the card was cut she jumped to his feet, seized a leather belt about 4 inches wide, which she buckled over her hips and abdomen, drawing it as tightly as possible--within a few minutes the placenta dropped to the floor.

As with these American Indians the mothers of most all savage tribes are alone at the time of birth of the child or a special retreat is built for them and are sometimes accompanied by relatives. These retreats are usually on the bank of a stream, where she can wash herself and child, so as to be cleansed and purified when all is over.

As has been said primitive labors are relatively normal, but if not the result is usually fatal. The cause usually being lack of strength, or the wrong position of the child in the womb. Savages usually treat these cases by suspending the women by the wrists and clasping her abdomen to push downward on the mass inside.

The position of women in giving birth among uncivilized races are varied, but they usually stand erect. in a kneeling position or sitting position, and a curious development of this is the obstetrical chair. This of course came later in civilization--its origin according to Englemann was the position of the husband who held his wife on his lap during her labor. Today some of these old chairs can still be found in the southern states. It is an armchair with the seat cut out in a semi-circular manner so that the child can be extracted. It was also known to the Egyptians because one of their hieroglyphic signs for the term "to give birth" is a picture of an obstetrical chair.

In Australia, South America, Russia and Africa a sitting position is used - trees, stones or the ground being used for the purpose, while in other countries a partially suspended position is of common practice, or like some of the North American Indian tribes. who tie the woman to a post or tree. and with her hands pointed above her head stands there until the child is born.

Many of these uncivilized races held to ridiculous beliefs and superstitutions and in every age have believed in the transmission of mental and physical impression from mother to the unborn child.

Aristotle wrote a text at the time when superstitutions governed all mtters pertaining to child birth. He writes that the best time to beget a daughter is when the moon is in the wane; that male children are formed in the womb by the 14th day and female by the 45th day because the beat of the womb is greater in producing the male than the female; that women miscarry because their cravings for peculiar things has not been satisfied.

Today we find people still believing in such superstitutions. Many mothers look upon the child as "Clay being shaped by the mother's moods, thoughts and expressions", even though it has been definitely proven that so called maternal impressions have no influence upon the unborn child.

Carol Van Blarcon gives the account of a child birth that takes place in mountains of the sotuh, in her Article "Rat Pie", under the supervision of ignorant medicines and which is like to that of the people of Africa.

"One visualizes a scene of brisk activity when a child birth is presided over by an old school midwife, what with the patient decked out in her husband's hat and shirt with bear teeth and old trousers around her hceck, feathers burning under the bed, a hornets nest smouldering above, while red pepper is blown down her throat and she is rapped sharply over the nose". It is no wonder that the child is born under such circumstances.

Undoubtedly one of the main reasons for such a high mortality rate today is that mothers still rely on these foolish superstitions.

CHAPTER IV

OBSTETRICS IN AMERICA

Obstetrics had its beginning in America long before the coming of the colonists. The methods used by the North American Indians are very interesting, their only midwife is nature. Their labors being short and with very little pain. At the time the child is expected the women seek seclusion, and after washing herself in cold water she returns to her usual work within a few days.

With the coming of the colonists obstetrics was also regarded as a simple physiological function, to be carried out in secrecy with a friend or midwife, and it was some time before it received the attention that it was receiving abroad at this time.

Later, however, in colonial history, midwives were brought to this country, to practice their arm, from abroad. One of the first midwives was the wife of Dr. Samuel Fuller who landed from the Mayflower. Probably the most well known of the colonial midwives was Anne Hutchinson, who came to Boston with her husband and began her helplessness in child birth. She only remained in Boston a few years. Because of her religious beliefs, she was considered a witch by suspicious people. After leaving Boston for Rhode Island she was killed in an Indian raid.

Many Colonial towns were without medicines -- s the demand was very great, families being very large, as high as 26 children of a single mother having been recorded. The records also show that the infant and maternal mortality was very great. "The Zukenstroosters were the first obstetrical attendants in Manhattan. There were women who were trained nursing, giving both physical and spiritual consolation to the sick. In New York City in the 17th and 18th centuries several ordinances were passed pertaining to the practice of obstetrics by midwives, to prevent various abuses which no doubt existed.

The use of midwives was general up until the 18th century and only occasionally was there a record of a male practicianer.

In the South the midwives were not quite as illustrious as in the North but due to the large families were kept very busy. Up until the time that the knowledge of antisepsis and the causes of puerperal sepsis were known the midwife was no doubt safer that the male physician. They were more adventurous so to speak than the women, by examining their patients before delivery and exposing them to infections. Statistics have shown that the mortality among the whites attended by Doctors was greater than that of the negroes attended by midwives.

After the introduction of the obstetrical forceps the practice of midwifery was taken up by male practitioners and it was not until the 18th century that the medical profession began to consider obstetrics as one of their branches.

Dr. William Shippen of Philadelphia in 1762 and Dr. John Tennent gave their instruction that midwifery actually began to have its place and be taught as a real branch of the Medical Education. Dr. James Lloyd of Boston in 1750 was said to be the first to use ligatures instead of using cautery.

So by the beginning of the 19th century the midwives had no doubt had their day and obstetrics was beginning to hold its place and was being put on an equal basis with other branches of medicine and was furthered by the contributions of such men as Samuel Bard, who expressed very soundly:

"There is some reason to believe there is greater safety in this branch of medicine from modest unassuming ignorance, than from meddling presumption which frequently accompanies a little learning."

Dr. John Stearns is given the credit for the introduction of ergot in obstetrics; Dr. O. W. Holmes his contributions on puerperal fever; Dr. M. B. Wright, his description of cephalic version in 1854; and Walter Channing for the Introduction of Anesthesia.

CHAPTER V

FORCEPS

In 1569, A Hugenot Physician by the name of William Chamberlin, fled from France to England and settled in Southampton. Here he lived and raised a large family, two of whom became very prominent physicians in London, both being named Peter. The younger of these two proved to be quite troublesome and had continued conflicts with brother practitioners, and on several occasions was summoned before the College of Physicians. He boasted on one occasion that he and his brothers and none others excelled in difficult labors.

This secret of which he boasted remained in the Chamberlin family for three generations and by means of them gaining great wealth. They were not given much credit, however, for their invention because they deprived the world of the knowledge that might have saved thousands of lives.

Hugh Chamberlin, the grandson of Peter, decided he would try to make the most of his inheritance. So he journeyed to Paris and condescended to reveal his secret to Maurician. Difficult labors had been managed up to this time by tearing the child to pieces with sharp hooks.

Maurician was quite pleased and accepted his offer which was the enormous sum of $10,000. However, they wished to have the method tested so Chamberlin was asked to make the test on a dwarf who happened to be in labor. He failed and the patient died of a ruptured uterus undelivered.

Being unable to sell his secret he was in very poor financial circumstances so he fled to Amsterdam and was at this time supposed to have sold the real secret of his success to the College of Physicians. After securing the secret the College succeeded in inducing the government to pass a law regarding the use of it. This law forbade anyone to practice medicine who had not given satisfactory evidence of knowing the secret and would give to each asperant a medical degree who was able to pay for it.

The Chamberlin secret continued to be a secret until the 18th Century. At this time there were two citizens in Amsterdam who were very public spirited. They decided that if this secret was so marvelous and such an exuberant sum had been paid for it, why shouldn't the whole world know of it. Thereupon these two men took the required medical course, paid the college for the required knowledge, and then published it to the world.

Whether the college tricked its students or whether Chamberlin had tricked the college, is not known, but it was only a single blade of the obstetrical forcep. After the secret had been made public it was generally known all over England. From this time on many improvements have been made, both in locks and blades.

Andre Levert of Paris was one to make improvements. His chief interest was obstetricis and he gained such a reputation that pupils came to him from all over Europe. His chief introduction was the pelvic or maternal curve of the forcep blade, and also made them more hollow so that the instrument could be applied more effectively to the fetal head and prevent them from slipping.

William Smellia, around 1738, also devised a forcep. It was considered to be the most efficient of his day and the instrument which he produced has not been essentially improved since.

In 1720 Jean Palfyn, Proffessor at Anatomy at Ghert, Belgium, made an obstetric forcep with an iron, called "iron hands". Even though they were very crude, they planted the idea and numerous modifications of the instrument grew out of it.

Today we have a large variety of obstetric forceps. The most commonly used: The Simpon - Tucker - McLane, the Naegle, the Keilland, and many others.

The invention and perfection of the forceps to me is most invaluable to the medical profession. It has been the means of saving many lives of both mother and child and a means of less pain and suffering.

CHAPTER VI

PUERPERAL FEVER

Great progress had been made by the 19th Century in Obstetrics but even so these advancements had been offset by the prevalence of the disease known as child-bed fever or puerpal infection. It was especially prevalent between 1652 and 1862, there being 200 epidemics which were then attributed largely to the weather. One of the worst was in 1773, and raged for three years. It is said that in Lombardy for one year not one woman lived after bearing a child. A means of controlling this infection was not developed until the 19th Century, however.

Some believed that it was due to the supression of the lockia and it was not until 1670 when Puzas advanced his theory that the farmer was questioned. Puzas maintained that puerperal fever was due to the metastasis of milk, which flowed into the blood during pregnancy and was normally attracted to the breasts, but which might be drawn to other organs or structures, especially the peritaneum with disasterous results. From his theory found support in several past reports which stated that milk had been found in the periteneal cavity in deaths following childbirth. Some years later, however, the New Vienna School in 1800 made a great achievement, the cause and prophylaxis of puerperal fever. Then previous to this in 1746, Malowin noticed at the Hotel Dieu in Paris that it was fatal, contageious and few escaped it. Chas. White in Manchester, England, had enlarged in the advantages of scrupulous cleanliness in these cases.

In America Oliver Wendel Holmes was making almost vainless efforts. On February 13, 1845, he read his paper in "The Contageousness of Puerperal Fever" to the Boston Medical Society. He maintained that women in child bed fever should not be attended by physicians who had previously been conducting post mortems, sections or cases of puerperal fever. That this disease may be transmitted in this manner from patient to patient, that the simple washing of the hands in

calcium chloride and changing the clothes after leaving a case of puerperal fever, and was likely to be a preventative measure. The following is to those who opposed him: "It is as a lesson rather than a reproach that I call up the memory of these irreparable errors and wrongs. No tongue can tell the heart-breaking calamity they have caused, they have closed the eyes just opened upon a new world of happiness; they have bowed the strength of manhood into the dust, they have cast the helplessness of infancy into stranger's arms or bequeathed with less cruelty the death of its dying parent. There is no tone deep enough for regret, and no voice loud enough for warning. The woman about to become a mother, or with her new born infant upon her bosom, should be the object of trembling care and sympathy wherever she bears her tender burden or stretches or aching limbs. The very outcasts of the streets have pity upon her sisters in degredation, when the seal of promised maternity is impressed upon her. The remorseless vengeance of the law, brought down upon its victims by a machinery assure destiny, is arrested in its fall at a ward which reveals her transient claim for mercy. The solemn prayers of the liturgy singles out her sorrows from the multiple trials of life, to plead for her in the hours of peril. God forbid that any member of the profession to which she trusts her life, doubly precious at the eventful period, should hazard it negligently, unadvisedly or unselfishly." The men who should have seen the truth, opposed it because it contradicted their teachings, and it was not until later that the immediate successor of Hodgis, Dr. Penrose being the professor at Pennsylvania, that it was taught most impressively.

Holmes also stated that one, Semmelweis (1818-1865) is a pupil of the Vienna School which I have mentioned before. In 1848 Semmelweis became an assistant instructor in the first obstetrical ward of the Allgemeines Krakenhouse in Vienna. He observed that this ward had acquired such a high mortality in puerperal fever cases that the women begged in tears not to be taken to it. He also noticed and concluded that the first ward differed from the second ward (which had a lower

mortality rate) in that the students who attended these patients came directly from the dissecting room to make their observations and examinations -- where as in the second ward much greater attention was paid to personal cleanliness. Keeping this all in mind he made a very careful study of the autopsies in the fatal cases of puerperal fever. In 1847 one of the students died of a wound received in the dissecting room; and being present at the post was able to draw further conclusions. He found that the pathological appearance was the same as in the puerperal of the first ward.

Precautions were immediately instituted in the care of labor cases and the mortality rate dropped from 9.2% to 1.27%, simply by washing the hands in calcium chloride salution. He met with great opposition and went to Budapest and became professor of obstetrics at the University and later died because he was not able to stand the strain of such violent controversy.

Pasteur and Lister were now left to complete the work of these other two men. Pasteur was not a surgeon but a chemist, and no one man has made such priceless contributions to the science of medicine as he did. It was the streptococcus that he found and which he proved is responsible for the cause of this infection in parturient women.

Pare said that he had attained such perfection in surgical art that nothing new remained to be discovered and it was not until 250 years later that this was disproved and even after Pasteur and Lister made their contributions the profession was slow to accept them.

Lister gave us antisepsis in 1871 and his teachings were applied in hospitals and the results proved both beneficial and startling and the death rate has decreased most rapidly.

CHAPTER VII

CESAREAN SECTION

Cesarean section in the old days was usually employed after the death of the mother, in order to save the child and there are records of occasional cases of it being performed successfully on a living woman.

People are under the impression it derived its name from Julius Caesar, who was supposed to have been brought into the world in this manner. However, this is not authentic because the operation was in vogue long before he was born. The name is derived from the Latin, partus Cesareus, from coedere to cut, but most likely the probable explanation of the name is that in 715 B.C., Numa Pompilius the king commanded by law that the child should be removed after the death of the mother if she was far advanced in pregnancy -- even if it was impossible for the survival of the child, so that they might be buried separately. The Lex Regia, or the law, became known as the Lex Asare under the rule of the Emperor, and the operation became known as the Cesarean operation.

Even at the time of Ambrose Pare few such operations had been performed on living women and for years after it was used only as a means of last resort, because of the high death rate from it.

From the beginning of the 17th Century it began to gain its popularity, and even tho still the mortality high and many obstetricians opposed it bitterly, it eventually gained a secure foothold. The Catholic Church also favored it because it provided an opportunity to baptize the baby and so it received untold support from the church.

In America the first successful Cesarean was performed by Dr. Jesse Bennett, a country practitioner in the valley of Virginia, on his wife, due to the fact that she had a contracted pelvis and the baby could not be born otherwise. The woman was laid on a plank supported by barrels and two negro women restrained

her. Laudanum was used to deaden the pain. For closing the wound he used stout linen thread, used in making heavy clothing. Both mother and child survived.

It is no wonder, however, that the women of the early days survived this operation -- there were no antiseptics to guard against infection, no sutures to close the wound, no means of controlling the loss of blood, and no anesthesia. But even so, with the loss of many lives it kept its stand.

In 1876 Paro of Pavia made a big advancement. He noticed that death was caused by the loss of blood from the open uterus after the baby was delivered and from the sepsis that followed, even if the woman lived from the loss of so much blood. His method was to make a long abdomenial incision, deliver the intact pregnant uterus, then after anchoring the uterus to the abdominal wall, it was opened and a baby and afterbirth were removed , thus preventing the bleeding and infected uterus from the abdominal cavity.

In 1882 through the work of Max Sunger we owe the credit of the perfection of this operation as it is performed today. It was he who devised the suturing of the uterus with the aid of antiseptics so that the uterus could be opened, the baby delivered, the wound closed and the uterus left with safety in the abdominal cavity. Thus it is now possible to perform this operation with a reasonable degree of safety if done by a skilled and experienced obstetrician, and is indispensible to the welfare of the mother and child. It has no doubt been the means of saving countless lives, but still it has its dangers and discomforts, and some risk. So if the women would put themselves under the care of a competent obstetrician, submit to periodic examinations throughout the term of pregnancy, often the performing of this operation can be averted and a normal delivery performed.

CHAPTER VIII

ANESTHESIA

The introduction of anesthesia to relieve the pains of child bearing and for surgical operations aroused violent controversy. The basis for the opposition lies chiefly in the chapter in the bible dealing with anesthesia.

In the 18th and 19th centuries some of the surgeons intoxicated their patients with alcohol or drugged them with opium to keep them from struggling, but in the use of such methods nothing is said of the child bearing woman and the same in ancient days. Sometimes people were punished even if it was only an effort toward the pains of child bearing. It is believed that the reason soporific potions were not used was because of the nature of the substance available. Opium for instance, and they also felt that it was injurious to the child and stopped the progress of birth.

In a manuscript of Zerobabel Endicott of Salem, there is to be found a prescription for relieving painful childbirth, and is as follows: "For sharpe and difficult travel in women with child Take a Lock of Vergins hair and any part of ye head, or half the Age of ye Woman in Travill. Cut it very small to fine Powder then take 12 Ants Eggs dried in an oven after ye bread is drawne or otherwise make them dry and make them to powder with the haire, Give this with 1/4 pint of Red Cows milk or for wont of it give it in strong ale wort." Even tho this concoction was not in the least effective it was less disgusting than some of the other medications that were used.

The beginning of the controversy over anesthesia started in 1800, when Sir Humphry Davy in England experimented with Nitrus Oxide. Then the work of Morton and Jackson in America made it possible for the use of Anesthesia in surgical operations and has now become commonplace.

Sir James Young Simpson was the first to attempt the use of Anesthesia in childbirth in 1847. He met with great opposition from the clergy especially. One of the Clergymen pointed out that the lying-in room of former dignity was now giving way under influence of chloroform to drunken states during which the child was brought into the world.

Simpson won his long fought battle and at the same time Dr. Channing of Boston was waging a struggle to introduce ether for a similar purpose, but which proved to be used only for surgery and chloroform was still used in childbirth.

Today, however, even tho nitrous oxide and other gaseous anesthetics are being used, ether and chloroform still extensively used in childbirth.

CHAPTER IX

MODERN MATERNITY HOSPITALS

To William Shippen of Philadelphia, who in 1765 with two other physicians, we owe the credit for founding of the first medical school in the United States, now known as the Medical Department of the University of Pennsylvania. So Philadelphia is known as the birthplace of American Medicine and here also the first hospitals were established as well.

From 1765 to 1888 a number of maternity hospitals were established, but were temporary and quite inadequate. In New York City there were no hospitals and it was not until 1798 that one was founded. It was in that year that the yellow fever struck and devasted the city, leaving many women who were pregnant with no means of support. So with these conditions facing the city a Lying-in-Hospital was established. In 1895 the present hospital was constructed and has grown to be the largest controlled obstetrical service in the world.

The demand for hospital deliveries is now increasing year by year. Out of the two million babies born alive in the United States each year one in four is a hospital baby. Obstetricians prefer to confine their cases in hospitals where capable assistants and adequate equipment are at hand for any emergency.

Gradually it has become necessary for maternity cases to be isolated so to speak, in a separate part of the hospital or a separate building, so that the patient is not exposed to other infectious cases.

Modern maternity hospitals are at all times changing to meet the ever changing social responsibilities and the demands of medical science. These institutions are designed to make child bearing safer and less harrassing.

These modern hospitals have four major departments:

1. Waiting room.

2. Delivery rooms

3. Lying-in Rooms.

4. Nursery.

In addition they have out-patient clinics where the expectant mother comes for observation. Also, the social service department who care for the women who are not able to attend the clinic.

The general atmosphere of these hospitals is one of cleanliness. Spotless but attractive wards and rooms. with conveniences. The delivery rooms are removed from the rooms of the patients, and sound proof nurseries.

In conclusion, even tho these hospitals must be conducted with scientific accuracy, it must not be forgotten that these patients should be treated as personalities and not just as another case.

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