FOLKLORE OF OBSTETRICS

II.

Thelma M. Krause

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Childbirth in Ceram - an island north of Australia. The mother tied to a tree with the hands above the head, almost suspended. She is attended only by the midwife.

Ancient obstetrics is at first seen by the student in a confused way. There were many advances and regressions in knowledge and technical skill. No other subject in the entire field of medicine is associated with as much romance and historical interest. It has been confused with fanaticism, mysticism, tradition, and a great deal of superstition much of which has been transmitted down to the present day. Each generation refuted some of the superstitions of the preceding generations and added others in their stead.

Englemann has come to the conclusion that obstetric art existed before the time of the Pharoahs, and previous to the time of Greek civilization. Even if one cannot unreservedly believe that primitive obstetrics as practiced by the North American Indians and the Africans of fifty years ago represents the obstetrics which was practiced in early Egypt, one can see that he has gone as far as possible by giving a picture of the management of childbirth in prehistoric times. Among the Mexican Indians and certain negroe tribes of Africa, obstetrics persists unadorned by modern civilization. Some of the principal characteristics practiced by primitive peoples were;

1. Labor was thought to be due to a desire of the fetus to change it's environment. If the child refused to be born, it deserved to die and did it's mother.
2. Aid was given by varying the posture.
3. The uterus was stimulated by pressure with the hands, kneading, or by compression of the abdomen with the end of a pole.
4. A slowly dilating os was stimulated, but it was never dilated manually.
5. The cord was not cut until the secundines were expelled. A finger nail or the teeth was used to cut the cord.
6. Post-partum uterine contractions were procured by kneading.
7. The puerperium ended with a plunge into a stream or after an interval of rest.
8. Before the parturient assumed her duties, it was the custom to smoke or burn the elements with which she had come in contact during her isolated period.

Obstetrics may be divided into seven periods;

1. All that precedes the time of Hippocrates, when observations were recorded and deductions made.
2. From the time of Hippocrates, 5th century B.C. to the Arabian physicians of the ninth century.
3. From the Arabians to their disappearance in the 12th century.
4. The period of relative darkness, from the 12th century to the time of Ambrose Pare' in 1550
5. From Pare' to the general knowledge of the obstetrical forceps.
6. The use of chloroform in the 19th century.
7. From the use of chloroform to the present time including the use of antiseptics in obstetrics.

First Period, before 500 B.C.

When obstetrics became an art and was practiced as such there is no means of knowing. In the Bible, abnormalities of parturition were observed and the function of the midwife was recognized 4000 years ago. The first recorded instance of spontaneous version is given in the Bible in the birth of the twins, Pharez and Zarah.

> " And it came to pass in the time of her travail that twins were in her womb. One put out his hand and the midwife took and bound upon his hand a scarlet thread saying-'this came first.' And it came to pass as he drew back his hand that his brother came out, and she said-'How hast thou broken forth?' This breach be upon thee.' Therefore , his brother that had the scarlet thread on his hand, and his name was called Zarah."

The Bible declares that the Hebrew women in Egypt had easier labors than the Egyptians;

> " The Hebrew women are not as the Egyptian women, for they are lively and are delivered e'er the midwives come in unto them."

An early recorded instance of a shoulder presentation was also recorded in the Bible as follows;

> "And when her days to be delivered were fulfilled, behold, there were twins in her womb; and the first came out red all over like an hairy garment, and they called his name Esau. And after that came his brother out and his hand took hold on Esau's heel and his name was Jacob."

There were many other interesting facts in the Bible , among them being that the women in labor were delivered on an obstetric chair and that they were accustomed to help themselves in labor by pulling on some resisting object.

The Egyptian hieroglyphics tell us the story of the valley of the Nile, and here we find the first records of childbirth. The earliest known medical manuscripts on obstetrics were recorded by the Egyptians, called "The Papyrus of Kahun". These were recorded from 3,500 to 2000 B.C. In these very early writings on obstetrics, there wasn't any mention of the conduct of labor. There were methods outlined to prevent pregnancy and to produce abortions, and to prevent the womb from wandering generally through the body. The uterus was recognized as the seat of pregnancy since they called it the "Mother of Man", but they didn't know the function of the ovaries or tubes. They observed some of the fundamental principles of the modern obstetricians.

In India, it was thought that the embryo fastened itself to the womb in the first month, was egg shaped in the second, that the head and extremities began to grow in the third, and that the head and trunk took distinct form in the fifth.

In the eight month, the child became uneasy and from the ninth to the twelfth month it was born. The head should always come first, the face turned toward the maternal spine as if in prayer, and looking to earth just before the birth took place. They advanced so as to recognize various presentations, abnormalities, and possibly devised artificial means to remedy them.

The Japanese practiced friction of the abdomen to facilitate labor, performed external version, determined the existence of pregnancy by certain signs in connection with the pulse, abdomen, and breasts.

The early Hebrews, Hindus, and Grecians treated obstetrics very much the same way that the Egyptians did. Religion exercized an increasing influence, but this was not favorable to scientific development. The priestly influence was important because they insisted on cleanliness for the women in childbirth to keep their bodies pure. From the "Ayur Veda", or Book of Life , dating back to 1,500B.C. we realize the progress made in obstetrical art in Egypt, India, Greece. The early obstetric literature on obstetrics of the Hebrews was the "Talmud".450 to 500B.C. Of the fetus in utero we read that;

"It floateth like a nut-shell on the waters and moveth hither and thither at every touch."

The child at full term is described as follows;

"The babe in its mother's womb is like unto a rolled up scroll with folded arms; it lieth closely pressed together, it's elbows resting on it's hips, it's heels against its buttocks, and it's head between it's knees. It eats it's mother's food and sips it's mother's drink, but it does not excrete for fear of hurting. Now when the time hath come that which is closed is ope'd and what was open,closeth, behold, the child is born."

In cases of asyphyxiation the Talmud recommends stroking the cord toward the infant before cutting it, and in extreme cases, mouth to mouth breathing was resorted to. Monstrosities and malformations were mentioned and certain passages suggest a hydatiform mole.

The women of Egypt prayed to the goddess Thuseris, the proctectress of childbirth. They wore small amulets of baked clay, with the figure of the pregnant goddess, half woman, half hippopotamus, with a large, pendulous abdomen and four pendulous breasts.

The women of Greece and Rome prayed to the presiding goddess, Lucina. The idea that evil spirits in the mother's body affected childbirth may or may not have been fostered by the priests.

In the Roman Republic certain people ran through the streets of Rome, lightly striking the abdomen of pregnant women with whips,of thongs made of goatskin, to frighten away the evil spirits of a difficult labor. Where divine aid was sought, goddesses were appealed to. Where graver interference was needed, the appeal was made to gods and men.

Second Period 500B.C. to 800 A.D.

Through the long period of religious influence, obstetrics as an art, attained a high degree of perfection. However, it was not until the time of Hippocrates that science began to play an important part. Hippocrates laid the foundation of scientific medicine by freeing it from the bonds of tradition, superstition, and divorcing it from religionand philosophy.

Under the teachings of Hippocrates, the priestly influence waned, and the temple gradually ceased to be the school of obstetrics! The spirit of the times and the feelings of the women themselves were opposed to dissection and close examination of the living women. Anatomy was restricted to a study of the surface of the body; physiology was elementary and pathology consisted only of theories. The Hippocratic writings are the work of Hippocrates himself, and other writings the work of those who preceded or followed him. However, they represent the medical Doctrine in Greece in the sixth, fifth, and fourth centuries B.C. Childbirth was in the hands of midwives and cephalic presentations were the only ones regarded as hopeful or natural. In faulty head presentations a crude cephalic version was devised by pressure or drugs causing sniizing or vomiting. An idea held in the Hippocratic collection was that the child had the most favorable prognosis if it were delivered in the seventh month. If these embryonic acrobatics started at the seventh month with no result, the effort was considered to have so weakened the child that it would not live if it were born a month later. Hippocrates compared the child in the uterus to an olive in the neck of an oil bottle, and he demonstrated that its long body could easily pass through, but he adds;

> "If the long diameter of this oval body be thrown across, either the bottle will break, or the olive will be crushed."

Although Hippocrates didn't know much about anatomy and was especially ignorant of pelvic anatomy, he advanced obstetrics. He had a master mind, was a keen observer, and was very intellectual. He advised some treatments which are used today, and he observed many true happenings, along with his erroneous statements. He said that when women are with child the mouth of the womb is shut. He discussed abortions very fully, emphasizing its dangers. For hemorrhage he advised raising the foot of the bed. His clinical records of fever following miscarriages, and delivery were accurate. He understood about the neuroses of pregnancy and gave a good description of puerperal mania. A collection of pronouncements of medical subjects called "The Aphorisus" have come down to us with the Hippocratic writings. Here are three out of the thirty-five aphorisus dealing with the diseases of women that have been ascribed to Hippocrates;

> " Women who are very lean have miscarriages when they prove with child, until they get into better condition. A woman with child, if it be a male, has a good colour, but if a female, she has a bad colour. The male fetus is usually seated in the right side, and the female in the left side."

The general opinion among the ancients concerning abortion was that the infant was but a part of the mother, and she had the same right to destroy it as to remove a tumor upon her body. Hippocrates was wholly opposed to it;

> " I will not give a pessary to a woman to procure abortion,"

The Greeks were impressed with the influence of maternal impressions on the fetus and encouraged pregnant women to take in the glories of the temple and statues in the hope that beauty born of vision might pass into the form and face of the babe.

Celsus, Soranus, and Galen were obstetricians of note from 30 B.C. to 131 A.D. Soranus was the first to teach podalic version on the living child, and advanced obstetrics to its greatest height since the time of Hippocrates.

Soranus anatomically defined the position of the child. He considered other presentations besides cephalic as normal. He defined dystocia and indications for operative interference. He gave good advice as to the position which should be occupied by the parturient. He stressed internal examinations which he recommended for the detection of malposition and the progress of labour. He gave an account of the management and feedings of infants, and the choice of a wet nurse. He was the most distinguished obstetrical writer of the period, and influenced Western medicine for centuries.

Galen influenced Eastern medicine for centuries, and he has given a full account of the obstetrics of his times. During the 3rd and 4th centuries the teachings of Galen were taken over by the Arabs. The Arabs had conquered India and based their midwifery on the "Ayur Veda" and on the teachings of Galen. The practice was to turn all presentation to the head. If an arm prolapsed they cut it off to make room for the head. The early Arabian obstetrics was full of horrible practices. Rhazes, a physician of Bagdad discovered the fillet and another Arabian physician described two kinds of forceps, but there has been considerable argument as to whether they were forceps for the extraction of the living child.

Moschion described the fetal membranes, taught that menstrual blood nourished the fetus, that the period of lactation was of eighteen months duration, that the "os" could be dilated manually and that the membranes could be artificially ruptured.

Aetius (501-575 A.D.) collected and submitted previous writings. He discussed puberty, menstruation, the signs of pregnancy, the cord, and the obstacles of labor. His articles considered the narrow pelvis, the hygiene of pregnancy, pessaries for a prolapsed uterus, polyps and other obstructive elements to labor.

Third Period 800 A.D. to 1200 A.D.

From the 5th century A.D until the Arabs took up the torch , there was a period of darkness. At the end of the 12th century, with the downfall of the Arabs, there came another period of obstetrical gloom. The 13th and 14th centuries were also almost a blank in obstetrics. During these centuries, ridiculous fanatic theories held sway. Obstetrics suffered a serious setback, and the previous teachings were lost or obscured. Childbirth throughout Europe was in the hands of the lowest type of ignorant women. There are no records left for these centuries.

Fourth Period 15th Century

In the 15th century Rosslin published "A Garden of Roses for Pregnant Women and Midwives", which was a compilation of what had been written since Hippocrates.

In 1565 "The Byrthe of Mankynde" by Raynalde, was published. This was the first English work of merit on obstetrics. There were fifteen English edition of the book from 1540 to 1654. Richard Jonas was the author of the first edition, but Thomas Raynalde later revised the book, adding the prologue, and other material. There were four copper plate engravings showing the fetus in utero, the obstetrical chair, birth bench or birth stool. The uterus in all of the figures looked like a flask, each with a child, stretched out at full length with the arms over the head, or in almost every attitude of the gymnast. The ages of the fetus looked anywhere from one to ten years, and their faces looked old men. There was a lengthy description of the fetal membranes, but not very much about the development of the embryo. He stated that the seed in the womb became enclosed within three "coats, cauls,

or wrappers". Evidently most of his knowledge was gained from studying the membranes of lower forms,probably the chick. The normal method of presentation was recognized as being vertex, and the occiput posterior was the most common. He did not have any idea of the mechanism of the engagement of the head or how it descended into the birth canal. The pregnant was cautioned to be careful of her diet,to avoid being constipated, to avoid exercizing strenuously, and not to stay in a hot bath too long. If there was swelling about the genitals, causing a great deal of pain the patient was treated before labor by an expert surgeon. The midwife anointed the birth canal with oil, or the white of an egg,and when she thought labor was at hand, she broke the membranes, with a pair of scissors, a knife or her fingernail. She massaged the abdomen above the navel, or dilated the os uteri with her hands,anointed with oil. After the child was born, the cord was cut three fingerbreadths from the navel, tied and wrapped in a piece of wool and covered with styptic powder. There was an old belief that the number of wrinkles in the cord between the end and the navel signified how many more children the woman would bear. The child was then wrapped will, and its eyes washed out with warm water. The placenta had to be expelled because if retained it; "will soon putrify and rot: whereof will eftsoon noisome and pestiferous vapours ascending to the heart, the brain and the midriff: through which the woman shall be shortwinded, faint hearted, often found lying without any moving or stirring in the pulses, yea and is many times suffocated, strangled and dead of it." Postpartum fever was described as a fever or the ague, or a swelling of the body, which occured many times after delivery, It was thought to be due to lack of purgation and cleansing of the flowers, or too much flow of lochia, which would weaken the woman. Remedies were given for this, and fortunately bleedin was not recommended. the best advise was to call in an expert physician.

In cases of a foot presentation the woman was instructed to lay upon her back flexing her thighs upon her abdomen and her head bent forward. The midwife, with her hand, attempted to turn the baby in utero. The woman was instructed to move so that the head would be turned downward.

In cases of twins, the object was to get one out at a time, taking first the one that was nearest to birth. When a dead fetus was discovered, it was expelled by remedies, fumigation of the vaginal region using the hoof or dung of an ass. If the woman died in labor, she was turned on her left side and cut open, and the child was removed.

The book advocated determining sex thus:

> " If ye be desirous to know wheter the conception be man or woman, then lette a droppe of her mulke be milked on a smoothe glasse, or a bryght knyfe, and if the mylke flow and spredde abrode upon it, by and by then it is a sygne of a man child. If it by a male then shall the woman with child be well coloured and lyghte, her belly rounde, bygger towards the ryght side than the left, for always the man chylde lyeth in the ryght side, the woman in the left side."

This book ends with a section not usually found in modern works on obstetrics. This consists of beauty remedies for removing freckles, unsightly hair, warts, to correct bad breath and the "rank savour of armholes."

At this time nothing was known of the dangers of infection. Most of the deliveries were done in the home so that they were spared "Hospital Fever". This was a valuable book, because it helped make obstetrics more scientific. It made the physicians put false modesty aside , and see and feel that childbirth was a medical and surgical problem.

In the middle of the fifteenth century a Caesarian section was performed by Bishop Paulaus on a living woman. In 1500 a Swiss performed a successful Caesarian section on his wife after she had been given up by the midwives.

There is reason to believe that Chinese women rarely have serious difficulty in labor and that childbirth with them was relatively easy. Their labors support the view that women who live simpler lives have easier labours than their more luxorious living sisters. The midwife or mother-in-law was called at the time of childbirth. There was no preparation for labor and very little was done to prepare the mother. Nature was allowed to take its course and patient waiting was the rule. The child was allowed to be born without assistance if possible. No examination was made to determine the presenting part either during pregnancy or labor. Any deviation from normal labor was thought to be due to some disease of the mother, the condition of her blood, poor health, bad temper, or the influence of the devil. When the patient came into definite labor, she assumed a squatting position. During severe pains the midwife gave such physical assistance as she could offer by pulling against her arms. In cases of difficulty, certain concotions of herbs taken by mouth were given to stimulate the muscles and to abolish fatigue. In cases of malposition, the more brave midwife attempted version, done without any scientific knowledge. The delivery of the placenta was left to nature, although the abdomen was massaged. If the placenta was retained, the midwife pulled on the unbilical cord. The umbilical cord had to be tied exactly 4 inches from the child's abdomen to prevent colic. Without any attempt for asepsis, the cord was severed with a knife or sharp edge of a broken bowl. The placenta was considered an excellent remedy for the white plague when cooked with certain remediable herbs. Uterine hemorrhage was treated by abdominal massage. Puerpal fever was treated by cathartics. After labor, the mother and child were bathed in gigger water, or water in which the skin of a Chinese grapefruit had been boiled. The mother's first meal was a bowl of rice fried with ginger. During the first month vegetables were not eaten because it was thought to cause diarrhea in the mother and child. On the 3rd day, the mother was given chicken cooked with ginger. From the tenth day on, pig's feet cooked in black vinegar and raw ginger, without water, were eaten to act as a carminative, to stimulate digestive functions, and to increast the flow of milk. No special attention was paid to the woman during puerperium. The poorer mother returned to her duties as soon as possible. However, the mother did not leave her house until a month after labor or until the ceremonies for the baby had been performed. A "lucky day" was chosen the baby bathed, his head shaved, his ancestors worshipped, and a banquet given for relatives and friends.

Fifth Period

Ambroise Pare' instituted Caesarian section on the living. For the first time, men began to work in the domain of

The man midwife. Eighteenth-century cartoon.

midwives. Pare' recognized the five positions of the fetus, but he didn't know which one was normal. He was a conservative obstetrician and was very adept at podalic version. The modern obstetric was invented at this time.

Peter Chamberlain invented this forcep, but it was kept a secret in the Chamberlain family for I50 years. Whenever any one of them delivered a stubborn case, he would not let anyo-other physician observe, as he was afraid that someone else would discover the secret and copy the forceps. A very large fee was charged the patient. When one of the Chamberlain's died, he would pass the famous forcep on to his son. The last male descendant of the Chamberlain family got into trouble in England, needed money badly and tried to sell the forcep to Mariceau in France. Mariceau wanted a demonstration and when Hugh Chamberlain failed to deliver a woman in labor, Mariceau refused to buy the forcep. Therefore, Chamberlain went to Holland and sold his precious secret, but not the original, for $7,550,. The Holland physician, in turn, sold one blade of this valuable instrument to anyone who had the price. Many other physicians tried to duplicate the Chamberlain forceps. In I7I7, Jean Palfyn demonstrated a forcep which was inferior to the original Chamberlain forcep. However, he was officially credited with being the inventor of the forcep. After this time, many physicians added some slight modification and attached their names to the forcep.

This was the most important obstetrical development during this period.

Sixth Period I7th Century

Man-midwives, as they were called, had become fashionable in France. Mauraceau was an important one, He corrected the idea that amniotic fluid consisted of maternal blood and milk. He called attention to placenta praevia, denied that the pelvic bones separate in labor, and discussed difficulties due to the umbilical cord and puerpal fever. He was the first to call attention to a tubal pregnancy.

The primitive women learned the horrors of childbed fever in the I7th and I8th centuries, when women would lie with four other patients in a bed five feet wide, and wait, if she survived the place, the butchery of midwife or student. For the fever killed two out of twenty in a hundred women. She has not been influenced in child-bearing by syphilis, tuberculosis, plague, typhus fever, gonorrhea and ~~alcohol~~ alcohol, however.

Puzos, a Frenchman, advocated abdominal pressure to control post-partum hemorrhage. He also believed in the early rupture of the membranes in placenta praevia, the protection of the perineum during labor, and friction of the os uteri to induce labor pains.

Manningham, of Great Britain, used mannikins to demonstrate the procedure of examination and delivery. Version was the recognized practice of selection, while delivery by forceps was rather neglected.

In the beginning of the I8th century obstetric teaching was started in the United States. In the I9th century obstetrics was well established in all parts of the civilized world and it's principles set forth in textbooks in different languages. More space will be devoted to a study of the obstetric practice of these centuries, because there are more definite facts available for such a study.

Samuel Bard was the author of the first textbook on obstetrics, published in America. The title page of the book published in 1807 was as follows;

A
Compendium of Midwifery
Containing Practical Instructions for the Management
of Women
During Pregnancy, Labor and Chéldbed
Calculated
To Correct the Errors and Improve the Practice of Midwives
As Well as to Serve as an Introduction to the Study of this Art
for
Students and Young Practioneers

This book carried a burdensome title page, but it contained some good sound advice and rules. He was asked to include a chapter on instruments, but he maintained that if good obstetrics was practiced there would be little need for instruments. Pelvimetery was not practiced in his day, but he gave some good rules for estimating the diameter of the pelvis. He didn't believe in prolonged vaginal examinations. Concerning contracted pelves and rickets, he said that children should be kept out of doors, have plenty of exercise and a plain, simple diet. When they grow to be young women the sould walk, ride, dance and live closer to nature.

A few of the many ancient superstitions handed down from generation to generation will be related.

In Old Calabar, medicines were given the 3rd month of pregnancy to prove the value of conception, andif the pregnancy stood the test of these medicines it was considered that the child would be strong and healthy. In case the ovum was expelled, they said it would have been an undesirable pregnancy of which no good could have come.

In Japan, the practioneer massaged the abdomen every morning after the 5th month. The patient stood up and put her arms around the practioneers neck, while her abdomen was massaged.

The Burmese women wore a tight bandage about the abdomen after the 7th month, to prevent the ascent of the uterus. They believed the higher the child ascended into the abdomen, the farther it would have to travel, and the more painful the delivery would be.

The Chinese believed that the child left the womb when it wanted to, and that it should be starved out, just as game was starved out of hiding. The mother fasted for weeks before the event.

In certain Persian villages, when the woman felt the first pain of labor, the schoolmaster excused the scholars, and birds held in cages until then were freed.

In Morrocco, 5 boys were taken from school and ran through the streets holding a cloth,in the corners of which 4 eggs were attached and upon which grown people spit and threw bottles. Finally, they all came together with kettles and pans, and made a terrible noise to frighten away the devil and bad spirits.

The Indians such as the Sioux, Modocs, Kootenias, and Santes were in labor from one to two hours. The time of suffering was about the same for the natives of Africa, Southern India, Australian Islands and other savage people.

Comanche squaw in labour. A shelter of boughs is provided for her outside the camp. Stakes are planted in the ground to furnish support for her during

Among the Sioux tribes, a squaw would go for wood in midwinter, have a child while gone, wrap it up, place it on the wood and bring both back to the lodge, miles distant. Dr. Choquette was with a certain tribe of Indians who set out for a hunting trip. One of the squaws, dismounted from her horse, and spread a buffalo robe on the snow. She gave birth to a child , which was immediately followed by the placenta. She wrapped up the young one, mounted her horse and overtook the party.

Many external manipulations were practiced, and all primitive people resorted to expression in one way or another.

The Siamese permitted an attendant to trample on the abdomen of a patient who was lying prone on her back.

The Finns compressed the abdomen by a belt or held the patient up and shook her as they would a pillow out of it's case.

In Russia and India, a sudden shock was made use of to help in the expulsion of the child. Guns were fired at the foot of the bed to hasten labor.

An Indian Squaw was placed on the plain and a noted warrior with all of his warpaint on, charged down on her, only to turn away at the last minute. This terrible ordeal was usually followed by the immediate expulsion of the child.

The Finns killed a chicken, and held the animal struggling in the agony of death in front of the mother. Another custom was to give the husband something to drink to put him in a deep sleep on his wedding day, and the wife crawled through her husband's legs without his knowing it.

There were many types of posture used during labor. Standing, supported by assistants, or the midwife sitting in front was used by the Sioux Indians, the Hindus, the Natives of Central Africa and the Phillipinos. The Patient was delivered also partially suspended with her arms about the neck of a strong male supporter, or by swinging from a rope or branch of a tree. Some of the N. American Indians tied the patient to a tree with her hands above her head and left her in that position until the child was born.Kneeling was the most common among the red and yellow races. The head and arms of the patient rested on some support. The squatting position was also used frequently, in which the patient squatted or sat erect on the floor as in defecation. In Southern Arabia, the patient lay on the floor and an assistant stood with her heels on the patient's ribs and worked the fundus with her toes. The inverse knee-elbow position was recommended by the Italians for very fat women. The patient rested on her knees and shoulders, her back being supported by a large number of cushions. The abdomen was raised very high, and the head hung downward. In the kneeling, partially suspended position, a rope was tied around the woman's chest, just beneath her arms, and the other end was thrown over a limb of a tree while 2 or 3 squaws drew upon this until the woman's knees barely touched the ground. 2 others encircled the patient's body with their arms and stripped down with considerable force. This usually caused prompt uterine work. The patient was seated on the lap of an assistant whose arms encircled her waist, pressing firmly on the fundus of the uterus. Certain African tribes delivered the women on their stomachs, and if labor did not progrsss satisfactorily they trampled on her back.

Delivery in obstetric chair. After Rueffius. 1637.

The obstetric chair flourished in the days of Greece and Rome, and was almost forgotten in the darkness of the earlier centuries of the Christian era, but survived in Italy. From Italy it traveled across the Alps to Germany and France. The fude stool of ancient times by this time had been much improved as the typical obstetric chair of the middle ages. The earliest possible reference to the obstetric chair was by Mashion in the 2nd century. It was recommended by the ancient Arabs, Hippocrates and Soranus, for difficult labors. In Syria, the obstetric chair was carried from house to house by the midwife. It resembled a rocking chair. There is an absence of a rocking chair in these homes, probably because the midwife carried it around and it was associated with suffering, labor and childbirth.

The third stage of labor varied. In the management of simple cases, the patient and the assistant retained the same position occupied during the birth of the child. The Indians kept up a steady pressure of kneaded the uterus. If the placenta was hard to expel the abdomen was rudely kneaded with clenched fists in endeavor to push the placenta out. TheBurmese forcibly expelled the placenta by sitting or standing on the abdomen. Certain African tribes gave the patient mutton suet to drink which acted as a laxative and the contents of the bowels as well as the placenta was expelled. Most of the Indians exerted gentle traction on the cord to remove the placenta, although some removed the placenta by severe traction on the cord, which often broke and the unfortunately woman suffered from severe hemorrhage. Sometimes, the patient immediately stood up to expel the placenta. The blood flowed freely and they thought the placenta was more quickly and easily delivered. Some stood and leaned on a stick which exerted considerable pressure on the hypogastric region. The Mexicans gave the patient a quart of raw beans so that they would swell and drive out the placenta, meanwhile vigourously choking her. Some of the Spanish women retained the kneeling position and drank a cupful of soapsuds to produce vomiting. The following was recorded concerning an Indian tribe;

> " The patient lay on her side and every now and then she was directed to stretch out. A buckskin thong was fastened to the cut end of the funis and the other end hitched around her great toe. When she stretched her leg, traction was placed on the placenta."

The umbilical cord was managed in a great many ways. Many superstitions existed as to how the cord should be cut. The Wakanbi of Africa used their hunting knives. The Loango of Africa used the edge of a stem of a palm leaf. The Papagres of Brazil cut the cord with the sharp fragment of a vessel or a shell. Certain Indian tribes chewed off the cord. Most of the Indian tribes and African tribes buried the placents. Some of the natives of Brazil ate it. The Loango of Africa hastened the drying of the navel, forced it off within twenty-four hours and burned it, believing that the child would fall into evil ways if the cord became food for rats. As long as the cord was still on the child, no male being was admitted to the presence of the newborn. The Japanese wrapped the umbilical cord in newspapers and then placed in the package a paper containing the father's and mother's name in full. If the child died, it was buried with him. If not, he carried it about with him and at the end of his life, it was buried with him. The Kalmucks, a mongolian tribe, buried the placenta, washed the child in salt water, and wrapped it in furs.

Immediately after delivery, certain Indian and African tribes plunged into a stream with the baby to be cleansed. A leather or buckskin belt ornamented with beads was used among most of the Sioux tribes. The Apache squaw was kept on her feet walking half an hour or more to favor the discharge of blood.

In Greenland, Guinea, and in certain tribes among the Carribeans, the husband was clothed like a woman, and put to bed. He sighed terribly as if he were enduring great pain and suffering. The woman attended to her household dutied, while her husband received the visits from friends and relatives.

Among many of the ancient tribes, the cold water bath initiated the new born child into the troubles of this world. In an old chronicle on "Early History of Virginia" there was the following statement about the Indians;

> "They dip the child over head in cold water, bind it naked to a board. They keep it in this posture for several months until the limbs grow strong. They lay the child flat on its back, set the board leaning on one end or hang it up by a string fastened to the upper end of the board."

Most of the ancient people had no idea of the process of conception at all. The childless women among the South Slavs visited the graves of women who died in pregnancy. Eating the grass from the graves, they begged of the dead to give up the fruit of their womb to them. It was their belief that the soul of the unborn child was in the grass and mould of the grave. The Arunta tribe believed there were stones possessing ancesteral souls awaiting birth; these were called "childstones". Through a hole in the stone the spirit child looked out for the passing woman in the hope of possessing her body. If a young woman passed the stone and did not want to have a child, she disguised herself as an old woman and with a cracked voice exclaimed, "Don't come to me, I am an old woman."

Association of the sexes with the fertility of the soil was a common illusion. In some places, the wife was sent away from home because of the husband's belief that she would hinder the bearing of fruit in the garden. However, parents of twins were credited with increasing the fruitfulness of the garden.

In many places, the afterbirth was thought to remain in union with the body long after the child was born. The future destiny of the individual was believed to be bound up with the afterbirth. The Kirakiut Indians of British Columbia buried the cord of a girl on the sand at high water mark, in the belief that she would become and expert clam-digger. They tied it to a dancing mask, so that she would become a good dancer. In Queensland, the grandmother buried the placenta in the sand, and marked it with sticks. When the God of Conception saw the sticks, he unearthed the afterbirth, carried it to his haunts, and secreted it in a tree or a hole in a rock, where it was safely guarded throughout the years. In the fullness of time, the spirit re-entered a baby and returned to the world. In the Caroline Islands, the umbilical cord was preserved in a skull, and when the parent decided the future destiny of the child, the cord was disposed of in a manner that would bring about the desired purpose.

The Bantu tribes were mortally afraid of the secretions of childbirth, and particularly of a miscarriage.

The whole country could be ruined if any of these secretions contaminated an attendant. A medicine man once said, "When a woman has had a miscarriage; when she has allowed the blood to flow, and has hidden the child, it is enough to cause the burning winds to blow and to parch the country with heat."

There were many taboos of menstruation throughout the ages also. Pliny wrote," If a woman strips herself while she is menstruating and walks around a field of wheat, the caterpillars, worms and beetles will all fall from the ears of corn--menstrual blood is a fatal poison, corrupting and decomposing urine, depriving seeds of their fecundity, destroying insects, blasting garden flowers and grasses, causing fruits to fall from branches, dulling razors--A Mare, big with foal if touched by a woman in this state, will be sure to miscarry;-nay, even more than this, for at the very sight of a women, though seen at a distance, should she happen to be menstruating for the first time after the loss of her virginity, or for the first time while in a state of virginity." Girls in the Dene tribes who were nearing maturity were not permitted to eat from dishes used by anyone else. They were not permitted to touch food with their own hands, and were fed by their kinsman. Sticks were provided by which they could stratch themselves. They were isolated and wore skin bonnets with fringe falling over their face. Ellis quoted, "Oh, menstruating woman, thous art a fiend, From whom all nature should be closely screened." The menstrual blood in some places has been used for therapeutic purposes such as for the treatment of puerpal fever, gout, erysipelas, goitre, hemorrhage, headache, worms and epilepsy. Ellis was an authority for the statement that a sect of Valentians used menstrual blood in observance of the Lord's supper.

The determination of the sex of the unborn child was a theme that has been of absorbing interest from the beginning of time. The Arabians said that if the nipples pointed upward,it would be a boy, if they pointed downward, it would be a girl; if they were colored pretty, it was supposed to be a boy, if colored badly, a girl. In Steirmark, a bountiful harvest of apples and nuts brought more boys, but when the pears were abundant there were more girls. In Italy, a woman sat on the ground to determine the sex of her unborn child. If she sat leaning toward the left it would be a girl, if leaning toward the right it would be a boy. In Saxony, a women rode a stick through the streets and the first person she passed determined the sex of her child.

Folklore of all nations at all times abounded in examples of the so called "maternal-impressions". Many superstitions and beliefs have been traced to Aristotle. Voltaire described the adventure of a young woman who claimed to have given birth to a rabbit. Hippocrated taught that strong emotions experienced by the pregnant woman could produce deformities in the child.

The sterility of a woman was looked upon as a curse and many and varied were the causes assigned. In Austria, the women feared magicians because they believed they had the power to make them sterile. According to the Japanese a woman became sterile from eating "akinasubi", a fruit derived from eggplant. There was much concern when a girl was given in marriage lest she prove sterile. To insure fertility, the Serbian woman turned her skirt wrong side out, hung it to a grafted tree, placed a glass filled with water under it; this water she drank the following morning when she put on her shirt. The Tartars believed the sun's rays contributed to fertility, so the bride and groom, in the early dawn, left their hut to greet the rising sun.

Spontaneous abortions, not chargeable to a wilful act, were relatively common among many races. Abortions were common in ancient Rome as Pliny remarked; "One feels ashamed to think of insignificant casualties, upon which depends the development of a human being, when even the bad odour of an extinguished lamp can call forth a miscarriage." The practice of abortion exists today among uncivilized nations who place no value upon the child and are ignorant of the dangers attending abortions. The women of Samoa and Hawaii justify abortions on the ground that they wish to avoid having their breasts become flabby. No place in the world were abortions and child murder practiced so freely as among the Hindus. The midwives and wives of barbers made it their business to induce abortions among the Hindus.

About sixty years ago, Mr Robert W. Felkin who had two years of medical study, contributed a paper to the Obstetrical Society of Edinburgh on his experiences among the natives of Central Africa, with reference to their childbirth practice. He witnessed a Caesarian section which he described as follows:

"Uganda is the only country in Central Africa where abdominal section is practiced with the hope of saving both the mother and child. This operation is performed by men and is sometimes successful.--

"The patient was a fine healthy looking young woman of about twenty. This was her first pregnancy. The woman lay upon an inclined bed, the head of which was placed against the side of the hut. She was liberally supplied with babana wine, and was in a state of semi-intoxication. She was perfectly naked. A band of bark cloth fastened her thorax to the bed, another band of cloth fastened down her thighs and a man held her ankles. Another man, standing on her right side, steadied her abdomen. The operator stood on her left side, holding his knife aloft with his right hand and muttering incantations. This being done, he washed his hands and the patient's abdomen, first with banana oil or wine, and then with water. Then, having uttered a shrill cry, which was taken up by a crowd assembled outside the hut, he proceeded to make a rapid cut in the middle line commencing a little above the pubes, and ending just below the umbilicus. The whole abdominal walls, and part of the uterine wall were severed by this incision, and the liquor ammnii escaped; a few bleeding points in the abdominalwall were touched with a red hot iron by an assistant. The operator rapidly finished incision in the uterine wall; his assistant held the abdominal walls apart with both hands, and as soon as the uterine wall was divided, he hooked it up also with two fingers. The child was next rapidly removed, and given to another assistant after the cord had been cut, and then the operator, dropping his knife, seized the contracting uterus with both hands, and gave it a squeeze or two. He next put his right hand through the incision and with two or three fingers dilated the cervix uteri from within outwards. He then cleared the uterus of clots and the placents, which had by this time become detached, removing it through the abdominal wall. His assistant endeavoured, but not very successfully, to prevent the escape of the intestines through the wound, The red hot iron was next used to check further hemorrhage from the abdominal wound. All this time, the operator was keeping up firm pressure on the uterus, which he continued to do until it was firmly contracted. No sutures were put into the uterine wall. The assistant who had held the abdominal walls now slipped his hands to each extremity,

and a porous grass mat was placed over the wound and secured there. The bands which fastened the woman down were cut, and she was gently turned to the edge of the bed, and then over into the arms of an assistant, so that the fluid in the abdominal cavity could drain on the floor. She was then replaced in her former position, and the mat having been removed, the edges of the wound, (the peritoneum) were brought together, seven thin, iron spikes, well polished like needles, used for this purpose were fastened together by string made from bark cloth. A paste prepared by chewing two different roots and spitting the pulp into a bowl was then thickly plastered over the wound, a banana leaf warmed over the fire being placed on top of that, and finally, a firm bandage of "umbugu" cloth completed the operation. Until the pins were placed in position the patient had uttered no cry, and an hour after the operation, she appeared to be quite comfortable. On the second night after the operation, her temperature rose to IOI F., and her pulse was IO8. Outside of that, her temperature never rose above 99F."

For centuries women in childbirth were permitted to suffer pain, with no effort on the part of midwives or physicians to relieve their sufferings; it was the will of God and that was all their was to it. In I847 James Simpson, Professor of Obstetrics in the University of Edinburgh, first administered chloroform to a woman in labour. In I808 ergot was introduced by John Stearns of New York.

Many new discoveries relating to obstetrics were being used. However, as late as I930, in the the United States, the black midwives of the South were still practicing magic and believing in the influence of demons and other unknown forces. They believed that the Lord their Master had called them to service. In the instance of one old negroe mammy she said that the Lord had appeared to her in a bright light, showed her a woman in labor, and told her she must go to the sufferers aid. However, this colored woman was a happily married ~~youn~~ individual and wanted to live "private". She told no one of this vision and tried to ignore it, but she later had another call. She said," I was washin' de cloes' on de back poc'h, and de suds pile up lak de clouds in de sky; all in a minit I seen a bright light an a han' come right up outen de suds hol'in a fiery sword an' a voice says,'Quintella, why ain't you obe'd de call?" She had been given a power that would bring happiness and fame, to say nothing of fees. She rushed into the yard, jumping, screaming, tearing her hair and clothes while she cried out,"Ise got de call-Ise got de call". Her Husband and neighbors thus found her, a full fledged midwife.

In the hour of need, a colored midwife had to have the left forefoot cut from a live mole so that the fresh warm blood had flown over the paw. Many of the beliefs and measures that the negroe midwives used were suggestive of early tribal rites and superstitions among other primitive peoples as well as the Africans. There was a widespread, age-old belief concerning the purifying powers of running water, fire and smoke. The midwives used these agents to ward off unseen powers who did ill to the mothers and babies.

To sidetrack the "hants" that might trouble young mothers, three nails were driven into the floor at the threshhold. An addition could be made to the house also, such as nailing a new board up over the door or taking the door down and turning it around. Since the spirits entered by the door many things were done to prevent their entrance. A "sifter" hung over the door of the knob would keep out "de ebil spirits" because

the spirit had to go through each hole in the sieve before passing the door and it became so tired and discouraged before finishing this task that he went away in disgust and never came back. Also, mustard seed was thickly strewn on the doorsill, and since the meddling spirit had to pick up every seed before he could get in, he got so tired that he gave up and left.

If the woman had an enemy and was "conjured" it was very bad for her. A "conjurbag", containing snake bones, a dried hop toad, and some of the enemy's finger nail trimmings slipped under the doorstep in the dead of night would cause the victim to fade away and die. However, if the spirit, could be vomited out by the victim, everything would be allright. Also, if the victim read the Bible backwards, the Lord would drive out the evil spirits and they wouldn't come back again.

There was brisk activity going on when labor was in progress. The patient wore her husband's hat and shirt, and had a string of bear's teeth, and a pair of her husband's old trouser's around her neck. She was given a big spoonful of gunpowder to swallow, and a small piece of earth was bound around her wrist. This earth was taken from under the left corner of the third step just outside the door. Feathers were burned under her bed, a hornet's nest was set fire to in the corner, red pepper was blown into her nostrils through a goose quill, and she was wrapped sharply over the nose so that she would get angry. Some of the gentler old women just hung a hornets nest in the corner, but others believed to get quick results it had to be set fire and thrown on the bed. If the baby was coming into a world which for him was fatherless, a pair of trousers were laid across the foot of the bed. The Midwife wasn't afraid of puerperal fever, because she knew how to cope with it. She bound a piece of fat hog meat, dusted with pepper around the patient's throat. Then she blew sulphur down the patient's throat. Bedbugs were put in the bed to prevent or cure fever. For cramps in the legs, a pair of old shoes were crossed under the bed. When the patient complained of after pains, the midwife came into the room with a newly ground axe hidden behind her. She slid the weapon under the bed, edge up, and this cut the pains. A sharp razor or pocket knife served the same purpose. Of course this had to be done so that the patient didn't know it.

The equipment necessary for deliveries varied considerably among these midwives. One old midwife had a shiny vanity case, containing a mirror, pink compact, a medicine dropper, and a bottle of murky looking fluid. This fluid was April snow water for the new babie's eyes. Another old crone used a dried everlasting plant. When she arrived at the bedside of a patient, she put the plant in water and watched the leaved unfold, while she smoked her pipe. If the leaves caught on one another, she feared trouble and resorted to action. One conscientious old midwife solved the problem of the steriliaztion of her scissors to her complete satisfaction. "Tree year ergo I bo't me a pair o' bran' new scissors'en before I ebber used um I biled um a good fo' hours en I ain' nebber had to sturlize um sence."

The State Department of Health in Virginia sent out pamphlets requesting the colored midwives to come to class in an effort to cut down the high maternal mortality rate. This showed that there was still a continued existence of this type of practice.

There are many superstitions that are present today among expectant mothers of the ignorant classes, such as; " Popcorn is good for the nausea of pregnancy; sometimes the husband has nausea for the mother;when the husband has the toothache,it is a sign his wife is pregnant; heartburn makes a heavy head of hair on the baby; the head of the child sinks into the pelvis in the dark of the moon; oil rubbed on the abdomen makes labor easy; if a woman has a large mouth, the labor will be easy; a seven months baby has a better chance to live than an eight months baby".

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