PREGNANCY COMPLICATED BY UTERINE TUMORS

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Tumors of the uterus complicating pregnancy are comparatively frequent, and but few of us with even a moderate obstetric experience have failed to see one or more such unwelcome cases. I have been led to consider this subject, because I have seen no less than twelve instances where pregnancy has been made far more distressing, and labor far more dangerous, than normal, because of uterine tumors.

The great variety in the character and in the size, shape, density, and location of these tumors renders it exceedingly necessary for us to study more than one or two cases of uterine fibroids or cancer, if we would form and establish correct opinions to govern our course of treatment. I believe we

are justified in drawing certain conclusions, and formulating certain rules which will aid greatly the physician who may be called upon to attend a woman who, during pregnancy, has either a benign or a malignant uterine tumor to complicate a condition which, in its most simple and normal state, is never totally devoid of danger.

Edematous Tumor.

It will be my purpose to call your attention first to those tumors of a benign and transient nature which are seldom discovered, and probably are seldom present until labor begins. They may properly be called *inter-partum* tumors. Their etiology can readily be made out as soon as they are diagnosticated. They are the result of the pressure which is occasioned by the contraction of the muscular fibres in the fundus and body of the uterus, while the lower part of the fetus, generally the head encircled by the cervix, is impacted in the cavity of the pelvis. The return venous circulation in the lip of the cervix is impeded; edema results, and this unusual tumor is quickly formed. Fortunately for making our diagnosis, and for differentiating this transient tumor from a permanent myoma or fibroma, we have decided varation in its density at every contraction and relaxation of the uterus. Then, besides, its very existence necessitates the sensation of heat and dryness to the touch, which comes from partial strangulation. It will be necessary to remember this fact, viz., that a fibroma at term will be quite dense all through the interval between the pains, while a tumefaction of the cervix is soft during the interval and very much more dense during contraction. The enlarged lip is not uneven, but gradually merges into the cervix. Not so with a fibroid, or cancer. Then, too, the edematous tumor has only been present a short time, and, of course, has provoked no *ante*-partum symptoms. Many a fibroma manifests its presence by causing pain and hemorrhage previous to the beginning of labor.

The prognosis is good.

Treatment of an Edematous Tumor.

The treatment is simple and safe, and consists in placing the patient in the knee-chest position for a half-hour, when the tumor, as a rule, will diminish very much in size.

If only slight relief results from the posture treatment, the swollen lip should be punctured with a scalpel or bistoury, and the engorged blood-vessels directly relieved. The hot water douche and the hip bath are also helpful. Often a little assistance with one or two fingers in the vagina will enable us to change the position of the head in the pelvis, or to push the lips over the head and above the pubes during a pain.

To illustrate:

Levers' case (Guy's Hospital Report, Vol. VII., p. 95): anterior lip very much elongated and swollen; labor retarded; punctured; immediate relief.

Levers' case (l. cit.), large tumor causing dystocia; anterior lip of tumor completely disappeared by steadily pressing upon it with fingers for half an hour.

Duclos mentions a case which came under his observation where the tumor, four by two inches, was developed from the posterior lip in two hours. He pushed the tumor upward and to one side, and thus made room for the head. The tumor disappeared spontaneously in three or four weeks. He also states that he saw two other very similar cases.

Nagle saw and successfully treated in a similar way a very similar case.

I myself have seen two cases, in private practice, where the posterior lip became enormously distended and tumefied. One case required to be punctured; in the other, I was able to push the tumor upwards. Both patients did well.

Robert Barnes describes a case of extreme elongation and tumefaction of the cervix uteri (L. Obst. Trans., Vol. XVIII., p. 293). Cervix protruding from vulva, vagina inverted; labor easy and quick (child of 7½ months); placenta followed quickly. Patient much exhausted, much pain, died on the sixth day. (Undoubtedly this case had other complications.)

Fibroid Tumors.

The subject of fibroid tumors complicating pregnancy has been studied very carefully by Levers (Guy's Hospital Report, 1842). At that time, however, he was not prepared to adopt measures of treatment which, to-day, are believed to be *par excellence* the best that can be followed. I would refer the reader to this very excellent paper and to our late President's

(Mundé) essay on "Enucleation *versus* Cesarean Section in Cervical Fibroids," etc. (Trans. A. G. Society, 1884); also to the "Encyclopedia of Gynecology and Obst.," Vol. IX., edited by Dr. Grandin. This is undoubtedly the most elaborate paper upon the subject in our language.

I would also refer to cases in the practice of and reported by Madame La Chapelle.

Cazeaux and Tarnier, Am. ed., p. 706. Ramsbotham, l. c., p. 706. M. Danyau, l. c., p. 706. Scanzoni, pp. 237, 238. Fry's case, London Lancet for March 8th, 1884. Guy's Hospital Report, Vol. VII., p. 102. Lusk's "Obstetrics," p. 539. Meigs, Bedford, Dewees. Lee's cases, Am. Journ. Obst., Vol. XV., Suppl., p. 175; l. cit., Vol. XIX., p. 606. Kelley's case, l. cit., Vol. XIX., p. 49. Hunter's case, l. cit., Vol. XIV., p. 892. Hanks' case, l. cit., Vol. XV., p. 174. Mundé's case, l. cit., Vol. XV., Suppl., p. 175. Warren's case, l. cit., Vol. XVI., p. 1124. Dr. Foster's case, l. cit. Lusk's case, l. cit., Vol. IX., p. 94; Vol. XVII. Van de Warker, Reamy and Baker, Trans. Am. Gyn. Soc., 1884.

The following cases from my own practice will perhaps be of interest:

Case I.—Mrs. F., primipara, 36 years. Two fibroids in body of uterus; one subperitoneal, to right of fundus, size of small orange; one in posterior wall, probably interstitial. When first seen by me, she was three months pregnant, and the uterus was completely retroverted and impacted, the tumors being pressed tightly against the hollow of the sacrum. Fever and great anxiety. (Case reported in Am. Journal of Obst., Vol. XV., p. 74.) Dr. H. F. Walker called in consultation. Patient placed in knee-chest position. Uterus was pressed into normal position, and the patient at once made comfortable. Tumors soon felt above pubes, and grew as rapidly as the fetus. Later, at seven months, she had an attack of localized peritonitis around the upper tumor, which was full four by three inches. Great distress resulted, and almost a miscarriage followed. Cervix dilated during the attack to the size of a half-dollar, and head presented at os. Pains controlled only by immense doses of morphine hypodermically. Delivery at full term. Tumors did not grow after seventh month. Normal labor. Mother and child did well.

Case II.—Mrs. A., 40 years, strong and rugged, multipara (case never before reported). Labor completed with forceps, child alive. A flattened interstitial fibroid tumor, three by four inches, discovered in posterior wall of body only after delivery of the placenta. Considerable hemorrhage. Ergot required. Patient died of puerperal metritis on the fourth day. Result believed to be due to presence of tumor.

CASE III.—Mrs. G., aged 26 years; second child. Had been in bed with great distress and pain for two weeks before I was called, vomiting all food. I found her three months pregnant, with a subperitoneal fibroid, two by three inches, lying in the hollow of the sacrum, and attached to the posterior wall of the completely retroverted uterus. The cure of this distressing condition was easily effected by placing the patient in the knee-chest position, and gently, but firmly, pressing the tumor and uterus into position. Patient did well. Two years and four years later, precisely the same conditions recurred, and the same treatment on each occasion resulted in relief of the bad symptoms.

This patient has been under observation for twelve years. The tumor always increases in size for two or three months, and then remains quiescent, occasioning almost no trouble at time of delivery. It has been, however, the probable cause of a retroversion of the pregnant uterus on three separate occasions.

CASE IV.—Mrs. —— (also reported in the AM. JOURNAL OF OBSTET. as a case of Cesarean section). Fibroid, size three by three by four inches, blocking up canal, so that only two fingers could be passed in. Dr. Thomas called in consultation. Cesarean section performed after death of child. Mother died two days later of peritonitis.

A tumor similarly located, and of about the same size, was safely enucleated by me a few years later. Thomas states that he now would enucleate all cervical fibroids of this character in this locality when they would prevent delivery of the child.

CASE V.—(See AM. JOURNAL OF OBSTET., Vol. XVI., p. 75.) This was a woman in labor with first child. Efforts had been made by Drs. Billings and Billington to deliver the head, but without avail. I was called; found a fibroid tumor in the posterior wall of cervix, half filling the pelvis; ether given; tumor pushed above the brim; forceps applied at once; live child delivered; mother did well. Subsequently, when again pregnant, I found the tumor quite as large. Consultation with Dr. Thomas, and, later, with Dr. Lee. Tumor easily felt, three by three inches. It was decided to allow pregnancy to go on, and deliver as before. Two or three months later, when delivered at full term by Dr. Partridge, no tumor could be found, although search was carefully made for it.

CASE VI.—Miss ——, a dry-goods saleswoman, brought to me by Dr. Sarah J. McNutt, had not menstruated for three months. On examination, the uterus was found to be enlarged in a very irregular manner. Several fibroid tumors, one subperitoneal, projecting from the right side of fundus and body, and one interstitial, in the anterior body of the cervix, so large as to prevent a six month's head from passing through the pelvic canal. Here we were justified in inducing an abortion; and a soft ca-

theter, and, later, a laminaria tent and electricity, accomplished this result. The patient made an excellent recovery.

CASE VII.—Miss F., aged 25, come to my clinic at the Post-Graduate Medical School in March, 1887. Had not menstruated for four months. Confessed possibility of pregnancy. Uterus reaching to umbilicus; fetal heart heard to left side of uterus. Dense, non-sensitive tumor to the right of uterus, and connected with it. Diagnosis of interstitial fibroid tumor in right side of uterus complicating pregnancy. Tumor so high up as not to be likely to delay labor. The patient was advised not to interfere with the condition. She went to full term, and was safely delivered.

CASE VIII.—Mrs. Welsh, aged 38, married five years, has been suffering from two large fibroids, one subperitoneal, and the other interstitial, and several smaller ones. Came to me first in May, 1884. Has taken ergot. Tumors have not grown since I first saw her until pregnant. Menses ceased on July 4th last; was comfortable most of the time until September, when she had a localized attack of peritonitis or inflammation in the upper and larger tumor, situated above the right horn. Came very near dying; high fever, rapid pulse; pulse 120 for several weeks. Abdomen very tender. Uterus kept increasing in size. Subjective and objective symptoms of pregnancy decidedly marked.

Jan. 3d, mother's heart beat 110 to 120. Fetal heart, 135. Patient seen by Dr. Thomas, who confirms my advice to wait till full term.

In this last case there had been two months of fever occasioned by a localized inflammation around the two upper tumors. The large tumor, three by four inches, in lower segment of uterus on posterior wall does not involve enough of the cervix at internal os to prevent delivery of child.

Probability of Pregnancy.

Pregnancy is not so common when there are existing fibroids. According to Virchow and Scanzoni, one-half of their married women who had tumors were sterile. Graily Hewitt believes a very large per cent of his cases were sterile. I find on looking over my notes that, of those who have consulted me at my office, full seventy per cent have been sterile.

Married women are more subject to these tumors than single, and colored women more than white.

Locality.

The posterior wall is the most common seat. They are seldom found under the broad ligaments; but when there, are

a source of very great pain, much more than when in other localities.

Tumors do not grow from the body into the cervix, but the reverse. Small tumors are round or slightly flattened; they have few nerves and blood-vessels, and being generally encapsulated, can be easily enucleated before or after labor. They grow during pregnancy in the direction of the least resistance, and consequently we often have a peritonitis started from the pressing outward of an interstitial tumor.

Prognosis.

A fibroid in any part of the womb is a source of danger. Even when high up, they may become inflamed (see Cases I. and VIII.) during pregnancy, and necrosis may set in and septic fever follow. After delivery, this result is quite frequent. If large, with a broad base, we must expect more or less hemorrhage (see Case II., also Dr. Lee's, etc., etc.). It is always possible for a tumor to grow, but sometimes they have been known to entirely disappear (see my Case V.). Gusserow ("Cycl. Gyn. and Obst.," Vol. IX., p. 321) claims that the possibility of absorption is not proven.

But the possibility of retrograde metamorphosis, although quite small, should nevertheless be remembered, for many of us have seen fibroid tumors disappear under ergot and electricity, and why not suppose it possible for such a result during pregnancy? Certainly, in one of my cases the tumor disappeared during the last month of pregnancy, after having been seen by Drs. Thomas, Lee, Billings, and myself.

Fibroid tumors complicating pregnancy will aggravate nearly all of the more common symptoms of that condition.

Two of my cases have had attacks of local peritonitis at the seat of tumors, both patients nearly dying of this condition. Two of my cases had sharp retroversion and incarceration of uterus at the third month, undoubtedly much aggravated, if not caused directly by, the tumor.

Many of those cases to which I have referred have suffered such excruciating pain from the inflammation and retroversion that they have finally aborted.

One case, a patient of Dr. C. E. Phillips, of this city, went to the seventh month, but had so much distress that, after a consultation with me, my associate, Dr. Talbot, and several

other physicians, premature delivery was resorted to. She made a good recovery. But rather than expose herself to the agony of another pregnancy, she consented to an abdominal hysterectomy, which was successfully performed, this last autumn, by Dr. James B. Hunter.

Then, too, there is always the possibility, and even a probability, that the patient will suffer from the disturbed circulation which is present with so many tumors of this character.

If abortions take place, they are more tedious and more dangerous, and if pregnancy goes on to full term, Nauss found that in 228 labors thus complicated, 53 per cent of the women died; Susserott out of 147 cases, 53 per cent of the women and 66 per cent of the children died ("Cycl. Gyn. and Obst.," Vol. IX., p. 316). This fearful mortality can be greatly reduced at the present time with our improved methods of antiseptic midwifery, and our better knowledge of these tumors.

Susserott ("Cycl. Gyn. and Obst.," Vol. IX., p. 314) found that in 147 cases, 20 were delivered with forceps; 12 mothers and 7 children lived. Version in 20 cases; 8 mothers and 3 children lived. Placentas removed by hand, 20 cases.

The fact of these tumors being present makes an abnormal presentation of the child a very common occurrence. And after delivery, the uterus does not contract with normal regularity. Rupture and hemorrhage, therefore, are not unusual. Susserott found that nine out of one hundred and forty-seven cases died from hemorrhage ("Cyc. O. G.," Vol. IX., p. 310). Nature's effort to expel the tumor after labor often inverts the uterus, thus inducing another complication. Dr. Edis speaks of two cases where a flattened submucous fibroid was easily mistaken for retained placenta after delivery, and was a source of danger to the patient, and anxiety and mortification to the doctor.

Diagnosis.

Many of the objective symptoms of pregnancy may be masked by the fibroid tumor. The flow or *a* flow may continue up to fifth or sixth month. (See Mundé's case, Trans. Am. Gyn. Soc., 1884.) If the tumor is submucous, it most likely will occasion some loss of blood. The enlargement of the uterus by the tumor in many cases, of course, renders it impossible to say that it contains a fetus.

The uterus will be unevenly developed; some portion of the body will be dense, while other portions will have the soft, elastic feel of pregnancy. The breasts will change, the reflex gastric symptoms will be present. However, a *positive* diagnosis cannot be made at an early date of the pregnancy. In stout women it would be exceedingly difficult. Only after the uterus has enlarged and the fetal heart-beat has been heard are we reasonably positive that we have the two conditions present.

When, however, a diagnosis is made, we should lose no time in learning the exact condition and size of the tumor. For the treatment must be varied according as the tumor is large or small, is located in the cervix or in the upper two-thirds of the uterus, is submucous, subperitoneal, or interstitial, and the rapidity with which it may have developed, for it has been found that those which grow most rapidly during pregnancy are most intimately connected with the circulation of the uterus.

We must remember that, in deciding upon a course of treatment, we have to consider the fact of a probable increase in the size of the tumor, at least for the first six months. (See cases IV. and V. of mine, where the tumors increased in size for full six months.)

If the tumor is subperitoneal and high up in body of uterus, we may expect but little interference in the normal delivery. But if in lower third or in the cervix, we may find it necessary to push up the tumor in order that the head may be delivered. (See my case, No. V.)

If the tumor is submucous, we must expect a severe hemorrhage, wherever it may be located. Fibroid polypi, when located near fundus uteri, may get in advance of the head, and need to be replaced. If the tumor is large and located in the cervix, we must try and enucleate it. (See Dr. Thomas' remarks in my case, No. 4. Mundé's paper, Am. Gyn. Trans., 1884; Danyau, 1851; Daye, L. O. S. Tr., Vol. XXVII., p. 158; Hicks, L. O. S. T., Vol. I.)

Enucleation is not generally difficult. The capsule should be incised, and tumor seized with vulsella forceps or strong tenaculum, and enucleated with Thomas' spoon saw or the hand. When the tumor is small, but still in upper segment of the womb, it can be allowed to remain undisturbed.

Playfair allows the mother to wait till full term in all such

cases, then enucleates or pushes tumor above brim. Sir Spencer Wells advises pushing tumor above the brim. Baudelocque, however, was the first to teach the advantage of this practice, and then hastening labor.

At full term, if the child is alive and the tumor cannot be pushed above the brim, enucleation should be resorted to.

If enucleation cannot be safely undertaken, and it is impossible to deliver per vias naturales, then Cesarean section or Porro's operation should be performed. When the tumor is in the cervix and involves a large part of it and is very dense, we must induce early abortion, since such a case will most surely require a Cesarean section if allowed to go to full term. But the case should be allowed to go to full term, if it seems possible to deliver a living child at that time.

If there is excessive hemorrhage, remembering the cause, we must inject stimulating astringents, and resort to transfusion. If septic fever sets in during pregnancy or after delivery, the patient must be stimulated and well nourished, and treated as in the same fever when the condition is otherwise uncomplicated.

Cancer of the Uterus.

When the pathological change in the uterus is of a malignant type, we have to consider that fact, in deciding upon our course of treatment. But here, too, we cannot ignore the rule which I laid down in the management of the patient when fibroid tumors complicate pregnancy, viz.: "Treat each patient as her peculiar local condition and her general health and strength may indicate."

My own case (Case A).

Mrs. D., multipara, aged 40, consulted me for unusual discharge from and pain in region of vagina. On examination, found epithelioma involving all the cervix. Uterus size of three months' pregnant womb. Some subjective symptoms of pregnancy. Cauliflower growth carefully removed with sharp curette in usual manner. Uterus increased daily in size. Disease made fair progress. Labor came on at about eight and one-half months. Cervix dilated in eighteen hours. Forceps used to aid delivery. Mother and child did well.

My second case (Case B).

Mrs. B., 34 years, multipara, patient of Dr. Kennedy; seen in consultation. Labor had been in progress several hours. No-

fetal heart-beat. There had been occasional hemorrhages, and the patient had become somewhat emaciated during the last six months. Two-thirds of the cervix were destroyed. Disease had commenced in posterior lip. Cervix was dilated to the size of a silver dollar. Used fingers to aid dilatation. Slight fissures in diseased portion, but little hemorrhage. Dead child delivered without instrumental aid within twelve hours after labor had set in. Child had been dead some days. Mother did well. Four months later entered the Post-Graduate Hospital, where I removed with scissors and cautery all the diseased tissue. Nine months later, the patient had gained twenty pounds in weight. Her physician, Dr. Kennedy, believed that the disease made very rapid progress during pregnancy.

I believe a few general rules can be formulated, however, which will aid us in adopting and judiciously executing the best plan of treatment. I will only call your attention to the symptoms, diagnosis, prognosis, and treatment. It is not always easy to make a direct diagnosis of pregnancy when either of these most common tumors are present. 1st. Because the hemorrhage which is present may be supposed to be the menstrual flow. 2d. Because the enlargement of the uterus may be supposed to be due entirely to the cancer or the fibroid, whichever may be present. Unless the subjective symptoms of pregnancy are given to you, one might justly be excused if pregnancy was overlooked. Indeed, such has been the case in a number of instances on record (see Lavery's case, L. O. T., Vol. XX., p. 82). But when you have over and above the usual symptoms of carcinoma uteri the subjective and objective symptoms of pregnancy, and, as is most common, with all of these symptoms exceedingly aggravated and intensified, one can hardly fail of a correct diagnosis. It has surprised me to find that a woman with a decidedly cancerous cervix or body is still capable of becoming pregnant and carrying the fetus to full term. Several patients have conceived a second time, and been delivered of a full-term child when at the previous labor the disease seriously complicated the delivery (see Lavery's case, loc. cit.). (In my first case, the mother conceived a second time, but aborted after three months.) It is, therefore, evident that there is nothing in cancer, *per se*, which destroys the life of the spermatozoa, or renders the ovaries sterile, or the uterus incapable of sustaining the ovum. Undoubtedly a woman is less likely to conceive when the uterus is markedly

diseased. Still we must not forget the fact that the two conditions occasionally exist at the same time.

Prognosis, with Reference to the Life of the Fetus.

A woman with carcinoma uteri is more likely to abort than is the healthy woman. Undoubtedly many a cancerous patient has aborted, and her family physician and herself have supposed that the excessive pain and hemorrhage were only the result of the disease, uncomplicated with pregnancy. Cancer, *per se*, is the direct cause of the cachexia which may, and often does, result in the malnutrition and final death and premature expulsion of the child.

Then, too, the excessive hemorrhage may be a direct cause of the death of the fetus.

In his valuable and scholarly paper on "Cancers of the Uterus Complicating Pregnancy" (see "London Obst. Soc. Trans.," Vol. XX., p. 206), Herman reports that six per cent aborted; in two of his twenty cases, however, the abortion was induced.

In the absence of any absolute data upon this subject, it is fair to suppose that an abortion, if it is to take place, will most likely occur at or before the third month. The final delivery of the child, however, if pregnancy goes on past the sixth or seventh month, is generally before the *ninth* month. Of one hundred and twenty-eight children of cancerous mothers, according to Herman's paper, one-half were living.

The prognosis for the mother must vary very much in each particular case. If she aborts, the abortion may be the precursor rather than the cause of death, and we must expect that a woman with carcinoma uteri is less likely to recover after an abortion than if the accident occurred from a less grave cause or complication. Still out of twenty cases of abortion there were only two deaths (l. cit). If the mother goes to full term or nearly full term, we can fairly expect that she will stand more than an even chance of recovery from the effect of the delivery. (See l. cit.; forty patients died out of one hundred and thirty-seven.) And these statistics can be greatly improved upon at the present day, since we understand the principles of antiseptic midwifery far better than formerly. There is no evidence that puerperal fever is more common or more fatal in these cases.

In many cases of pregnancy complicated with carcinoma, the disease seems to make very rapid progress during pregnancy. There is no rule, however, to guide us in this matter, as in one of my own cases the disease made surprising inroads during the pregnancy, while with the other little or no change took place during the nine months of utero-gestation. Martin's case and Olshausen' case. West's case. Matthews Duncan's (L. O. T., vol. XX., p. 286) made rapid progress.

Herman believes that cancer grows more rapidly during pregnancy. After delivery, however, the disease seems to remain quiescent for a time.

Treatment.

When cancer attacks the uterus, vagina, or rectum, closing tightly the cervical canal so that no dilatation can take place, or blocking up the vagina with a firm, immovable tumor, then this diseased tissue must be removed by the knife, the scissors, the wire or the actual cautery, or the child must be removed through an abdominal section.

It matters but little where in the genital tract the disease may be located, whether in the cervix, vagina, or rectum, it is so similar in its general appearance and its symptoms, and in its final results, unless surgical interference is attempted, that when we have rules to govern us in one class of cases they will apply to all cases of disease in this locality. After watching each case for a longer or shorter period as may be necessary to fully understand the progress the disease is making and the effect it is having upon the life of the child, we will then be justified in producing abortion or premature delivery, or using palliative treatment, and finally using the forceps, turning, or resorting to Cesarean section, etc.

It is important to carefully watch the patient during the last months of pregnancy if a live child is to be delivered. Labor must be brought on in the best possible manner, when the fetal heart-beat indicates its approaching death. If there is a great amount of soft, easily broken down, cancer granulation, attended with much or little hemorrhage, and a decidedly fetid discharge, and especially when these conditions and symptoms are present together with a marked cachexia from the re-absorption of the ulcerating and decomposing local disease, then an operation should be performed for the removal

of as much as may seem justifiable of this diseased growth. This palliative treatment will result, in the vast majority of cases, in at once giving the patient an opportunity to recuperate, and in making her willing to meet and mingle with her friends again, without the feeling that she is a source of offence to them by reason of the foul odor from the vaginal discharge. If the fetal heart-beat continues strong, and we have the general indications that the mother can go on to full term, we are justified in such delay. For at the beginning of actual labor the cancerous tissue becomes less dense, the healthy portion of the cervix begins to dilate, and a decided change is noticed long before the child would die from any cause which is peculiar to parturition. In uncomplicated cases, we should not bring on labor until it is reasonable to suppose that the child may live, especially when only a part of the cervix is diseased. Spiegelberg (L. O. T., Vol. XX., p. 207) states that, when only one lip is involved, she should go to eight months and delivery will generally be easy and safe.

This is my own experience, and even when all the circumference was more or less involved (Case B), still labor was not very tedious, and in my first case (Case A) labor was not much delayed by the disease. Some cases have had quick labors even though the whole cervix was involved. In a summary of 51 cases delivered unaided (see Herman's paper), 13 had the whole cervix destroyed, and 5 of these 13 were sick but one day. In 128 cases, forceps were applied 9 times. In 11 cases the uterus ruptured, and in 20 cases the patient aborted. The forceps seemed to have no other effect on mother or child than the assistance it rendered in delivery, while of the 9 cases where turning was resorted to, 8 of the mothers died within a month.

Phillips (L. O. T., Vol. XV., p. 67) advised delay when at all promising, and believed that in time nature would succeed in slowly dilating the cervix, but that each case must be judged on its own merits.

Braxton Hicks (L. O. T., Vol. XVIII., p. 86) states that no rule can be laid down for all cases; that each case should be treated according to its own merits.

Of the 12 (see Herrman's paper) cases of Cesarean section, 8 mothers died and 3 children died; of 12 craniotomies, 9 mothers died in one month; of the 51 cases of unaided deliv-

ery, 15 had only part of cervix involved, while 13 had the whole circumference of cervix implicated.

Dilatation takes place in the healthy part of the cervix. The diseased tissue is often fissured, and gives way, or is pushed down, or crushed against the sacrum or pubes. Often it can be removed in great part at the time of labor, and by thorough douching and the application of pyroligneous acid, or other medicaments to the parts, the labor can be made but little more dangerous than normal.

In regard to the best methods of delivery, Herman believes that forceps give the child the best chance when it is necessary to aid in the delivery.

Of 128 cases, 51 were delivered unaided, in 9 cases children were turned; in 12 cases, Cesarean section was performed; in 12 cases, craniotomy was performed; in 13 cases, the patient was not delivered.

When laceration takes place at or near the diseased portion, according to Herman's report of nine cases, eight had no severe hemorrhage. In my second case (Case B), the hemorrhage from laceration was slight.

At the present time, with strict antiseptics, podalic version can be performed much more successfully, and we might hope to check hemorrhage more surely after one or both legs had been brought down and the hips were pressing against the bleeding diseased tissue.

To recapitulate:

In Edematous Tumors.—Use hot-water douches; change the posture to the knee-chest; press up the tumor, or, if necessary later, incise the tumor.

In Fibroid Tumors.—Bring on early abortion if nearly all the cervix is involved; when subperitoneal or interstitial, near either lip or the os internum, press up tumor above brim, if possible; otherwise place patient in knee-chest first and enucleate; if unable to deliver per vias naturales, perform Cesarean section or Porro's opeation.

In Cancer.—Induce abortion if cancer is decidedly hard and involves all cervix; if child seems to be failing, induce labor at once; remove local disease with best means at command. If patient does not succeed in effecting delivery, use forceps first, turning second, and Cesarean section third.