# CONSERVATIVE AND RADICAL METHODS OF TREATMENT IN OBSTETRICS.*

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As a general rule new methods of treatment are brought forward by those who must be considered radical rather than conservative in their ideas. Before any new method of treatment is really accepted by the profession at large it must stand the test of time and experience and also the criticism of those who are conservative in their ideas. For example, we have, not so very long ago, witnessed the re-introduction of the operation of symphysiotomy and its modifications, its too frequent employment, and its gradual decline until now it occupies its true place in obstetrics. That place is hard to define in a few words, but it must be admitted that the modern operation of ischiopubiotomy has a definite indication under

*Read at the Annual Meeting of the Tri-State Medical Society, August 21, 1918.

rare conditions, and, although infrequently performed, it now represents a true and valuable addition to our obstetric resources.

With the history of symphysiotomy in mind, the history of Cesarean section is most interesting, especially when reviewed from a standpoint of conservatism, and particularly when we contemplate the rapidly widening list of indications which are proposed from time to time by enthusiastic operators who must be classed as radical.

The pendulum has already begun to swing back again. With increasing frequency we read articles advising further restrictions in its indications written by the more conservative element. Personally I feel very strongly that the operation is done far too frequently and on much too slight an indication.

The dictum "once a Cesarean, always a Cesarean" is not literally true but very nearly so. If it is borne in mind when considering the operation in the case of a primipara, the result will often be the choice of a less radical method of delivery. Those of us who have practised obstetrics extensively have seen numerous instances of Cesarean section done for insufficient indications. The operation itself is so easy to perform that it is done in cases of difficult delivery arising from almost any cause. It is time to warn the profession to stop and think.

There are certain disadvantages not so often spoken of. With a theoretical mortality of half of 1 per cent. the actual average mortality is about 5 per cent. A great many recoveries in the 95 per cent. who do get well, are made only with great difficulty, and after a great variety of complications during convalescence. The advisability of performing Cesarean section in all subsequent deliveries is, to my mind, one of the chief objections to its indication for placenta previa.

In a subsequent pregnancy it is impossible to know what the real condition of the uterine scar is, and therefore a delivery by the natural passages has an element of danger so great that we are hardly ever justified in permitting it to take place. Two or three cases illustrating this might be of sufficient interest to quote.

Three or four years ago a patient was admitted to my service at Bellevue Hospital who gave a history of having had a Cesarean section by a well-known operator at a New York hospital. She did not know why it had been done and an examination of her pelvis showed only a trivial contraction. Although her pains were moderately severe the cervix was dilating rather slowly, so that a second Cesarean section was decided on and performed several hours after the onset of labor, about midnight. When the abdomen was opened

it was found that the uterine muscle had separated for 2 or 3 inches in the upper part of the old scar, the membranes were protruding in a well-defined "bag of waters" and contained the child's foot. I am convinced that in this case one or two more pains would have resulted in the complete rupture of the uterus at the site of the scar and the probable death of the patient.

In June of this year a patient came back to the hospital for a third delivery; both the previous deliveries were by Cesarean section, done by me for contracted pelvis. The third operation was done at what was calculated to be full term, but before actual labor had commenced. When the abdomen was opened it was found that the uterine scar had separated for its entire length and the uterine contents were covered only by peritoneum. The scar of one of the previous operations was firm and sound. In both of these instances the patients recovered without any special incidents.

This experience makes me feel that it is always safer to do a second operation than to allow labor to go on naturally. It is a strong argument for conservatism in considering the indications for Cesarean section, especially in a primipara.

There is another condition in which conservatism should be much more generally employed, so I shall not dwell longer on this. I refer to the condition known as eclampsia and the toxemias of pregnancy.

It is not possible to discuss the treatment of eclampsia, and what is more important, its prevention, without including pre-eclamptic toxemia or the toxemia of pregnancy. Fortunately the early recognition of toxemia is easy, and its early treatment will almost invariably prevent the development of convulsions. I firmly believe that it is possible to make the occurrence of convulsions one of the rarer of the complications of pregnancy and so take a long step toward eliminating the most terrible of the causes of death during childbirth. When convulsions have once appeared there are a certain number of cases that are doomed, no matter what methods of treatment may be used or skill employed.

If all this be true, the early recognition and treatment of toxemia becomes of extreme importance.

I shall not attempt to more than outline the diagnosis and treatment of pre-eclamptic toxemia because the subject has been gone over so thoroughly and so often.

Symptoms *may* come on suddenly, but as a rule there is ample warning. Every pregnant woman should be told of the importance of having regular and frequent urine examinations made, and also

should be instructed to promptly send an extra specimen at any time that she may not feel well.

The urinary findings, high blood pressure, nausea, vomiting, headache, edema, eye symptoms, nervous symptoms, gradually developing and increasing in intensity make up a clinical picture easily recognized. In spite of all theories the practical management of such a case seems to me almost self-evident—elimination of the toxins and in the majority of cases termination of the pregnancy. Because the latter is not always thought necessary, but mainly because symptoms are ignored and so not even eliminative treatment is begun, convulsions appear.

Prevention of eclampsia then, resolves itself into vigilant care of all pregnant women from the beginning of pregnancy. In private practice, it means that patients must be seen frequently and have regular examinations of the urine, regular physical examinations including taking the blood pressure, with a careful regulation of diet and of elimination. This must be carried out as a routine. In hospitals, it means the establishment of prenatal clinics and a follow-up system so that trained clinical observers, either a specially trained nurse or a physician, shall regularly and frequently see these patients in their homes. As soon as any suspicious symptoms appear prompt eliminative treatment along the well-recognized lines should be instituted. If the symptoms in any given case are due to definite causes, such as neglect of the bowels, too high a nitrogen intake or too much alcohol or all of these, eliminative treatment with the correction of the cause of the symptoms will be enough. If the symptoms develop without definite cause, and eliminative treatment is not followed by *prompt and absolute disappearance of all symptoms*, pregnancy should be terminated. Such preventive measures are now gradually being developed in our larger cities and the improvement is already very marked.

After the occurrence of convulsions the indication for treatment is again, elimination of the toxins, termination of the pregnancy, and also the control of the convulsions. There are two methods of carrying out these well-recognized procedures, conservative and radical. The conservative method is typified by the procedure of Stroganoff, to whom must be given the credit for what I regard as a great advance in our modern methods of treatment. He relied almost entirely on morphine given in large doses and did nothing to hasten the delivery of the child. In a large number of cases reported (369) he had a mortality of 6.6 per cent., by far the best result that any method has shown. Tweedy of the Dublin Rotunda

has reported a smaller number, seventy-four cases, with a mortality of 8.11. His treatment differs somewhat from that of Stroganoff, particularly in the fact that he delivered by forceps after the cervix was dilated. More recently McPherson has reported a mortality of 8.6 from the Lying-In Hospital in New York. His cases were few in number and phlebotomy was done as a routine whenever the blood pressure was 175 or over.

The radical method consists in active elimination, the so-called medical treatment, combined with prompt and rapid emptying of the uterus by some kind of operation which is called the obstetrical treatment. The usual procedure is a rapid dilatation of the cervix followed by a version and breech extraction, or a forceps operation. In cases in which the cervix is unchanged, that is, not yet softened, vaginal or abdominal Cesarean section is often performed.

At the present time there is an infinite variety in the management of these cases ranging from ultra-radical to ultra-conservative with every possible variation between these two extremes. There is also a mass of literature, and a mass of statistical results, that leaves the reader all too uncertain when he attempts to find out the best established practice.

Up to four or five years ago I believed in and taught, what I now think to be, a far too radical treatment of eclampsia. I regarded morphine as an extremely dangerous drug and rarely used it. I did believe in veratrum viride and frequently used it as a substitute for phlebotomy. I was, and am still influenced by the clinical fact, observed for many years, that the sooner the uterus is emptied after a convulsion, the sooner the patient begins to improve. Otherwise I should unhesitatingly adopt the morphine treatment and not interfere at all with the pregnancy.

In preparing this paper I have had tables made of the eclamptic cases occurring at the Manhattan Maternity Hospital, and have classified them according to radical and conservative methods of treatment. A study of these cases shows some very striking and valuable facts, and I think shows the advantages of a moderately conservative treatment.

In eclampsia more than in any other condition that I know of, deductions based on mortality results are apt to be misleading. For example, I have seen quoted series of thirty or more cases treated by various methods without a single death. A careful analysis of these cases proves to my mind merely that early treatment is better than late treatment. This in itself is a most valuable lesson and one that does not seem to be generally appreciated. It is valuable

not only from the standpoint of the treatment of actual convulsive toxemia but also from the standpoint of prevention.

In the tables that I present here, I want to draw attention to the many complications and obstetric injuries directly due to methods of delivery, which must add enormously to the mortality of those who still practise radical means of delivery. We must recognize that an eclamptic patient is a poor surgical risk. She stands shock-producing operations, and shock-producing methods of treatment very badly. This fact partially explains the high mortality of Cesarean section and the danger of otherwise valuable methods of treatment such as veratrum viride and hot, wet packs.

Forcible delivery through an unprepared canal is under any circumstances an obstetric sin. In an eclamptic patient, the advantage of time gained by a rapid delivery through an unprepared canal, is more than counterbalanced by the necessity of repairing the damage done, and the patient's chances of ultimate recovery are much lessened. The procedure known as accouchement forcé has no place in the modern treatment of eclampsia.

With these facts before us, the question suggests itself—what is the best way to manage an average case of toxemia, or of eclampsia, by the average well-informed practitioner. It seems to me that the answer to this question is, by a moderate or rational conservatism. Conservative treatment may be divided into the surgical (or obstetrical) treatment, and the medical treatment. In convulsive toxemias the conservative surgical treatment should consist of absolutely nothing, if the patient is in labor, and the introduction of a bag if the patient is not in labor. The ideal treatment is non-interference, but an induction of labor by the introduction of a hydrostatic bag is, to my mind, rational and is indicated unless labor comes on spontaneously and promptly. The cause of the onset of labor is, of course, the toxemia, and it may not be operative unless the toxemia is profound. Profound toxemia is exactly what we are trying to avoid by our medical treatment, and morphine, which is becoming our chief reliance for the control of the convulsions, retards the onset of labor. Therefore I contend, a bag should be introduced, as gently as possible, in all cases unless labor comes on spontaneously. In certain cases the introduction of a bag may be delayed in the hope that labor will come on spontaneously, but not as a rule.

Other obstetric operations should not be done on an eclamptic patient, but unfortunately must be performed at times for other indications which are imperative. The least harmful, and the most

often performed, is a simple low-forceps operation. In breech presentations it is, of course, necessary to extract manually, but the operation should be done late, after full dilatation of cervix. In transverse presentations, version and breech extraction is necessary.

I do not believe that Cesarean section is indicated for eclampsia. It is necessary when the pelvis is contracted in an eclamptic patient. Theoretically, it is better to do a simple Cesarean section in a primipara with a long hard cervix, but practically, better results are obtained by conservative waiting.

In my hospital practice I have many times been called to see an eclamptic case which was described to me by one of my own staff as a "good case for a Cesarean," but so far I have not performed the operation and have never regretted my decision.

Let us now consider the medical treatment. Extreme conservatism relying only upon one drug, is not more rational than the empirical use of many drugs. The indications for treatment are the same as they always have been, namely, to control the convulsions and eliminate the toxins. The details must differ according to the severity of the case. Perhaps a better idea can be had, if we try to follow a typical case from the moment of her entrance into the hospital. She is at once put to bed in a room separated from the ward, and the room is kept darkened and quiet. A catheterized specimen of urine is obtained and immediately examined, and the blood pressure is taken. She is then given half a grain of morphine hypodermatically, and the drug is repeated in one-quarter grain doses sufficiently often to control the convulsions or to keep the respirations down to twelve. The stomach should be washed out with a hot bicarbonate of soda solution, a dram to the pint, after which 2 ounces of sulphate of magnesia in solution is introduced through the tube and left in the stomach. Depending on her condition, colon irrigations are started within a short time, using from 4 to 6 gallons of hot bicarbonate of soda solution, and repeating it every six hours. Glucose solution, 3 to 5 per cent. may be used, but I do not use salt solution. If the blood pressure is high, she is given one-fiftieth of a grain of nitroglycerine by hypodermic every one or two hours until the pressure drops. In some cases phlebotomy may be done, but not often. During this time the history has been obtained, and after an examination, a diagnosis as to whether she is in labor or not is made. So much is routine. In most cases if the patient is not in labor a bag is now introduced, but in others, depending on the period of gestation, the condition of the cervix, the urinary findings, blood pressure

and severity of the convulsions this measure may be delayed for a few hours.

Thus far elimination through the bowels and kidneys only has been undertaken, and elimination through the skin, almost as effective, should be utilized. Formerly I relied a great deal on a hot wet pack, but think that it is possible to have too free a perspiration, so prefer to wrap the patient in warm *dry* blankets and use an electric light apparatus which can be so regulated that only a gentle perspiration is induced.

The patient is kept as quiet as possible, except that she is given frequent small doses of water by mouth if she can swallow. The electric light pack may be used for periods of two or three hours at a time. As a rule labor has begun, or will begin, by this time, and convulsions in favorable cases have ceased. As soon as the patient is taken out of the warm pack, unless labor has begun, a bag is introduced through the cervix. It is a better plan, and saves time, to do this after the colon irrigation has been given, but occasionally, as before mentioned, it may be wiser to delay until after the warm pack has been used.

The introduction of a number two or three size bag can be easily done in almost all instances, but occasionally the cervix is hard and long, so that its introduction may be difficult and necessitate prolonged and painful manipulations In such cases it is better, either to wait for a few hours longer, or to introduce a bougie or a small rectal tube into the uterus at once. Prolonged manipulations are not permissible and are inconsistent with the conservative method of treatment. The actual delivery of the patient should be done with as little interference as possible. I recognize, however, that a simple low-forceps operation will sometimes prove more conservative than waiting. The actual indication for this amount of interference depends on the judgment of the obstetrician and cannot be formulated very easily.

Such in general is the present-day method of treatment, and it is to my mind a vast improvement over the more radical methods of rapidly emptying the uterus.

At the Manhattan Maternity Hospital the total number of eclampsia cases in 14,000 deliveries was ninety-one, or about one in 154.

Of these ninety-one cases, four were admitted too late for treatment, and in thirteen, convulsions first appeared after the delivery of the child. This leaves seventy-four cases who received treatment at the hospital before and during delivery. Of these, forty-one were

treated by the radical method and thirty-three by the conservative method. I have tabulated the forty-one cases treated according to radical methods, the thirty-three cases treated conservatively, and have also made a table showing the number of operations and complications occurring in the radical cases. In order to make a complete report of all the ninety-one histories which were studied I have added a list of the postpartum eclampsias and the cases admitted who died without any treatment.

These tables will be found at the end of this paper.

The most important and instructive fact resulting from a study of these seventy-four cases is the great improvement in the mortality following the introduction of conservative methods of treatment.

In forty-one cases treated radically, the maternal mortality was 29.2 per cent. and the fetal mortality 73.1 per cent.

In thirty-three cases treated conservatively, the maternal mortality was 15.1 per cent. and the fetal mortality 33.3 per cent. In other words the maternal mortality was reduced one-half, and there was even a greater reduction in fetal mortality. This reduction in mortality is not only encouraging, but is to me very significant when I take into account several facts. In the first place the change from radical to conservative methods was not made suddenly but gradually, and the details of the eliminative treatment were also gradually evolved. This means that not all the good effects of the moderately conservative treatment, which is in use at the present time, were operative except in a certain proportion of these cases. The mortality is still too high and I confidently expect to see it reduced below 10 per cent. in the near future. In the thirty-three conservatively treated cases, bags were used thirteen times, and forceps twelve times, about the proper proportion for the use of bags, but rather too frequent a use of forceps. Induction of labor by bags and the use of forceps on the same case occurred five times, and in one of these the pelvis was contracted, so that operative interference was not done as often as it might appear. Compare now the results for the child; we find a mortality of 73.1 per cent. in the radical table reduced to 33.3 per cent. in the conservative. The first figure is really a frightful mortality and seems to be due chiefly to operative procedures. The latter figure is a tremendous improvement but should be still better.

Two of the children in the group of conservatively treated cases were born macerated, which really reduces the deaths to 27.2 per cent.

In the radical table I do not find any mention made of a macerated fetus, so probably there were none.

The mortality for children will always be greater than the mortality for mothers, as prematurity is a cause of death as well as toxemia. Elimination of operations as an additional cause will keep the mortality lower. The greatest source of improvement in mortality, both for mothers and children in the future, will be by early treatment and by prevention. Arguing from the standpoint of mortality statistics alone, it seems to me that the advantages of conservative treatment have been proven. Turning now to the table of radical cases we at once notice the large number of operations and complications. There were so many that a separate table has been made to show exactly what was done. In forty-one cases, eighty-three operations were performed. These consisted of rapid manual dilatation, the introduction of a Pomeroy bag, that is, a rapid dilatation by means of a bag, version and breech extraction, forceps, craniotomy, vaginal and abdominal sections.

It is noteworthy that rupture of the uterus occurred four times and severe lacerations were noted sixteen times. These operations were performed by members of the Attending and Assistant Attending Staff and some of them by House Surgeons.

It cannot be that this hospital has a great many more cases of severe lacerations and uterine ruptures than other hospitals. It brings to mind when looking over statistical tables, the question of accuracy in diagnosis and of careful history taking.

As has been observed by others, many cases of extensive lacerations, including at times actual rupture of the uterus, must be overlooked and the death of the patient put down as being due simply to eclampsia. In any case the danger of lacerations of the birth canal is a most powerful argument against radical operation especially against the whole procedure known as accouchement forcé.

The final table shows that of ninety-one eclamptic cases convulsions began postpartum thirteen times, or a frequency of about 14 per cent. Among these were two maternal deaths, a mortality of a little over 15 per cent., but there was only one fetal death, which was due to the accidental separation of the placenta.

Although the total number of postpartum cases is small, the percentage of frequency and of mortality is about the same as in statistics from other sources.

Among these cases, no operations were performed excepting forceps in one case, and no children were lost excepting the one case in which an accidental separation of the placenta occurred.

This series therefore approximates the ideal aimed at by the conservative method of treatment. The results are the same as in our conservative table as far as the mothers are concerned and are practically perfect as far as the children are concerned.

It seems to me that this comparison can be used as still another argument for abandoning radical and adopting conservative treatment for eclampsia, no matter at what period of pregnancy toxic symptoms occur. Finally I have listed the four cases brought to the hospital just before they died. There was not time in any case to do anything in the way of treatment. In one instance an attempt to save the child by a postmortem Cesarean section was made, but failed. I am afraid that we shall always have a certain proportion of cases, in this instance a little over 4 per cent., where no treatment can be of any value because patients are brought in too late.

Some of the deaths in the other seventy-four cases were also undoubtedly due to the fact that treatment was begun too late.

Through the recent establishment of Maternity Centers working in conjunction with Maternity Hospitals, in certain zones of New York City an earnest and systematic effort is being made to discover cases of toxemia of pregnancy. They are then referred to the proper hospital in the zone in which they live, and so by early treatment it is hoped not only to improve mortality statistics and methods of treatment but also to prevent a large proportion of cases from ever reaching the convulsive stage.

During the past winter, in Zone Seven, in which the Manhattan Maternity Hospital is situated, an average of two or three toxic cases a week were referred through Maternity Center nurses. As a rule they are mild cases, but usually have albumin in the urine, increased blood pressure, disturbances of digestion and edema. They are kept in the Hospital for four or five days under active eliminative treatment, restricted proteid intake, and rest. At the end of this time their symptoms usually have disappeared and they are allowed to go home, but are still kept under close observation and regular examinations of the urine are made. If any case should not clear up under treatment, labor is induced and the danger of convulsions averted. I have not been able to get the exact figures regarding the number of these cases because quite a large proportion of the patients are referred to the Hospital for other causes.

The subject of this paper is perhaps too general to be successfully summarized. I may say, however, that I believe that the practice of obstetrics would be on a higher plane and better results for mother and child obtain if we should try to be more conservative in the treatment of certain conditions.

*First.*—Increased conservatism should be practised in considering the indications for Cesarean section.

*Second.*—Increased conservatism should be practised in the treatment of eclampsia, especially as regards operative delivery.

*Third.*—A large proportion of eclamptic cases can be prevented and valuable lives saved by an earlier recognition of toxic conditions.

TABLE I.—ECLAMPSIA, THIRTY-THREE CASES TREATED AT MANHATTAN MATERNITY HOSPITAL. CONSERVATIVE METHOD.

| No. | Para | Mother | Child | Time of pregnancy, weeks | Treatment and complications |
|---|---|---|---|---|---|
| 1 | II | Dead | Living | 32 | Bags |
| 2 | I | Living | Living | 40 | None |
| 3 | I | Dead | Living | Full term | None |
| 4 | VII | Living | Dead | 30 | None |
| 5 | I | Living | Dead | 32 | Forceps, 2d stage |
| 6 | XI | Living | Dead | 30 | Bags (Baby macerated) |
| 7 | I | Living | Dead | 38 | Bags, forceps, contracted pelvis |
| 8 | II | Living | Living | 40 | None |
| 9 | I | Living | Living | 40 | Bags, forceps, 2d stage |
| 10 | XIII | Living | Living | 28 | Bags |
| 11 | I | Living | Living | 28 | Bags |
| 12 | I | Living | Living | 36 | Bags |
| 13 | I | Living | Dead | 32 | Forceps |
| 14 | I | Living | Living | 36 | Forceps |
| 15 | I | Living | Living | 40 | None |
| 16 | I | Living | Living | 40 | Forceps, low |
| 17 | II | Living | Living | 38 | Bags, forceps |
| 18 | XIV | Living | Living | 40 | None |
| 19 | VI | Living | Living | 40 | Bags, forceps, low |
| 20 | I | Living | Living | 40 | Bags, forceps, low |
| 21 | III | Living | Dead | 40 | None (Baby, general edema) |
| 22 | I | Living | Dead | 33 | None (Baby macerated) |
| 23 | II | Dead | Dead | 38 | None |
| 24 | I | Living | Living | 40 | Forceps, low |
| 25 | IV | Living | Living | 40 | Bags |
| 26 | I | Living | Living | 40 | Forceps, low |
| 27 | I | Living | Living | 40 | Forceps, low |
| 28 | I | Living | Living | 40 | Bags |
| 29 | I | Living | Dead | 26 | Bags |
| 30 | I | Living | Living | 40 | None |
| 31 | I | Living | Living | 40 | None |
| 32 | I | Dead | Dead | 40 | None |
| 33 | I | Dead | Dead | 36 | None |

Maternal mortality, 15.1 per cent.
Fetal mortality, 33.3 per cent.
Two babies macerated which would make a mortality of 27.2 per cent.

TABLE II.—ECLAMPSIA, FORTY-ONE CASES TREATED AT MANHATTAN MATERNITY HOSPITAL. RADICAL METHOD.

| No. | Para | Mother | Child | Time of pregnancy, weeks | Treatment and complications |
|---|---|---|---|---|---|
| 1 | XVII | Living | Dead | 24 | Manual dilatation, version |
| 2 | I | Living | Living | 30 | Forceps, low ƒ |
| 3 | I | Living | Dead | 36 | Manual dilatation, version |
| 4 | I | Living | Dead | 38 | Manual dilatation, version, severe laceration |
| 5 | II | Living | Dead | 28 | Manual dilatation, version, laceration |
| 6 | I | Dead | Dead | 7 mo. | Vaginal section, craniotomy. Mother died in twenty-four hours |
| 7 | I | Living | Living | 32 | Manual dilatation, version |
| 8 | II | Dead | Dead | 38 | Lacerations |
| 9 | II | Living | Dead | 30 | Lacerations, manual dilatation, high forceps |
| 10 | I | Dead | Dead | 30 | Manual dilatation, high forceps, craniotomy |
| 11 | IV | Dead | Dead | 40 | Version, breech extraction |
| 12 | IV | Living | Dead | 30 | Manual dilatation |
| 13 | I | Living | Dead | 32 | Manual dilatation, forceps, severe laceration in bladder |
| 14 | III | Dead | Dead | 28 | Manual dilatation, forceps, craniotomy |
| 15 | II | Living | Dead | 40 | Manual dilatation, version, laceration |
| 16 | XI | Dead | Dead | 40 | Manual dilatation, version |
| 17 | I | Living | Dead | 28 | Manual dilatation, version, laceration into broad ligament |
| 18 | I | Living | Dead | 40 | Breech extraction, laceration. |
| 19 | I | Living | Dead | 38 | Laceration, version |
| 20 | I | Living | Dead | 40 | Manual dilatation, forceps, laceration |
| 21 | I | Living | Living | 32 | Pomeroy bag, manual dilatation, forceps, deep laceration |
| 22 | VI | Dead | Living | 40 | Manual dilatation, version, laceration, rupture of uterus |
| 23 | I | Living | Dead | 24 | Manual dilatation, version |
| 24 | II | Living | Living | 36 | Manual dilatation laceration, high forceps |
| 25 | II | Living | Dead | 32 | Pomeroy bag, version, slight laceration |
| 26 | III | Living | Living | 40 | Manual dilatation, forceps, version |
| 27 | I | Dead | Dead | 28 | Pomeroy bag, version, rupture of uterus |
| 28 | I | Dead | Living | 40 | Manual dilatation, Pomeroy bag, version |
| 29 | II | Living | Dead | 32 | Manual dilatation, version |
| 30 | V | Living | Dead | 40 | Manual dilatation, version, laceration |
| 31 | I | Living | Living | 40 | Pomeroy bag, forceps, Pomeroy bag |
| 32 | II | Living | Dead | 40 | Manual dilatation, forceps |
| 33 | I | Dead | Dead | .. | Manual dilatation, forceps |
| 34 | I | Dead | Dead | 6 mo. | Manual dilatation, version, vaginal section, Pomeroy bag |
| 35 | I | Living | Dead | 8 mo. | Manual dilatation, forceps |
| 36 | II | Living | Living | 40 | Manual dilatation, version breech |
| 37 | I | Dead | Dead | 40 | Pomeroy bag, forceps, laceration |
| 38 | I | Living | Dead | 38 | Manual dilatation, forceps |
| 39 | I | Living | Living | 36 | Cesarean section |
| 40 | I | Living | Living | 36 | Pomeroy bag, forceps |
| 41 | I | Living | Dead | 28 | Bags, dilatation and version |

Maternal mortality, 29.2 per cent.
Fetal mortality, 73.1 per cent.

TABLE III.—MANHATTAN MATERNITY HOSPITAL. OBSTETRICAL TREATMENT IN FORTY-ONE RADICAL CASES.

| Case No. | Man. Dil. | Pomeroy bags | Version and breech ext. | Forceps | Cranistomy | Vag. section | Cesarean section | Rupt. uterus | Severe lacerations |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | .. | 1 | | | | | | |
| 2 | 1 | .. | 1 | | | | | | |
| 3 | .. | .. | .. | 1 | | | | | |
| 4 | 1 | .. | 1 | | | | | | |
| 5 | 1 | .. | 1 | .. | .. | .. | .. | .. | 1 |
| 6 | .. | .. | .. | .. | 1 | 1 | .. | .. | 1 |
| 7 | 1 | .. | 1 | | | | | | |
| 8 | .. | .. | .. | .. | .. | .. | .. | .. | 1 |
| 9 | 1 | .. | .. | 1 | .. | .. | .. | .. | 1 |
| 10 | 1 | .. | .. | 1 | 1 | | | | |
| 11 | .. | .. | 1 | | | | | | |
| 12 | 1 | | | | | | | | |
| 13 | 1 | .. | .. | 1 | .. | .. | .. | 1 | 1 |
| 14 | 1 | .. | .. | 1 | 1 | | | | |
| 15 | 1 | .. | 1 | .. | .. | .. | .. | .. | 1 |
| 16 | 1 | .. | 1 | | | | | | |
| 17 | 1 | .. | 1 | .. | .. | .. | .. | 1 | 1 |
| 18 | .. | .. | 1 | .. | .. | .. | .. | .. | 1 |
| 19 | .. | .. | 1 | .. | .. | .. | .. | .. | 1 |
| 20 | 1 | .. | .. | 1 | .. | .. | .. | .. | 1 |
| 21 | 1 | 1 | .. | 1 | .. | .. | .. | .. | 1 |
| 22 | 1 | .. | 1 | .. | .. | .. | .. | 1 | 1 |
| 23 | 1 | .. | 1 | | | | | | |
| 24 | 1 | .. | .. | 1 | .. | .. | .. | .. | 1 |
| 25 | .. | 1 | 1 | | | | | | |
| 26 | 1 | .. | 1 | 1 | | | | | |
| 27 | .. | 1 | 1 | .. | .. | .. | .. | 1 | 1 |
| 28 | 1 | 1 | 1 | | | | | | |
| 29 | 1 | .. | 1 | .. | .. | .. | .. | .. | 1 |
| 30 | 1 | 1 | 1 | | | | | | |
| 31 | .. | 1 | .. | 1 | | | | | |
| 32 | 1 | .. | .. | 1 | | | | | |
| 33 | 1 | .. | .. | 1 | | | | | |
| 34 | 1 | 1 | 1 | .. | .. | 1 | | | |
| 35 | 1 | .. | .. | 1 | | | | | |
| 36 | 1 | .. | 1 | | | | | | |
| 37 | .. | 1 | .. | 1 | .. | .. | .. | .. | 1 |
| 38 | 1 | .. | .. | 1 | | | | | |
| 39 | .. | 1 | .. | 1 | | | | | |
| 40 | .. | .. | .. | .. | .. | .. | 1 | | |
| 41 | 1 | 1 | 1 | | | | | | |
| | 29 | 10 | 22 | 16 | 3 | 2 | 1 | 4 | 16 |

TABLE IV.—MANHATTAN MATERNITY HOSPITAL. POSTPARTUM ECLAMPSIA.

| No. | Para | Mother | Child | |
|---|---|---|---|---|
| 1 | II | Living | Living | |
| 2 | X | Dead | Dead | Due to separation of placenta—32 weeks |
| 3 | I | Living | Living | |
| 4 | I | Living | Living | |
| 5 | I | Living | Living | |
| 6 | III | Living | Living | |
| 7 | I | Living | Living | |
| 8 | I | Living | Living | |
| 9 | I | Living | Living | |
| 10 | I | Living | Living | |
| 11 | III | Living | Living | |
| 12 | III | Living | Living | |
| 13 | I | Dead | Living | |

CASES NOT IN HOSPITAL LONG ENOUGH TO ESTABLISH TREATMENT.

| | | | | |
|---|---|---|---|---|
| 1 | I | Dead | Undel. 8½ months | None |
| 2 | I | Dead | Undel. 8 months | None |
| 3 | I | Dead | Dead | Postmortem Cesarean section |
| 4 | III | Dead | Undel. 38 weeks | None |

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