

# Prevention of Eclampsia

1921

By J. P. Hastings, M.D.

In regard to the treatment of eclampsia, De Lee (1) writes: "Since we do not know the cause of eclampsia the treatment is all empiric. Even so, more can be accomplished by prevention than by treatment, because after the convulsions have set in the nervous balance is overthrown. We cannot prevent the action of the primary cause of eclampsia, but by carefully watching the pregnant woman we may discover the first manifestations of the action of such noxious influences and by appropriate measures, the disease reaches a climax. It is the pregnancy that favours the development of eclampsia, if we cannot prevent and cure eclampsia we can remove the pregnancy. If the earliest signs of the impending catastrophe can be detected, emptying the uterus will almost invariably prevent a fatal issue."

It is obviously the duty of the attending physician to prevent, if possible, the development of eclampsia. During the latter months of pregnancy the urine should be examined every two weeks. The presence of albumin is the most important danger signal, especially when the albumin increases and the amount of urea steadily decreases, it behoves one to be on his guard. In suspected cases, weekly, and even daily examinations of the urine should be made. Symptoms such as headache or oedema of the feet appear even before the urinary evidence. When the first signs of toxæmia appear commence treatment at once. Put the patient to bed and allow nothing but water by the mouth. After a few days, when improvement is marked, allow milk in the addition to water. In a day or two milk foods may be added. As the patient progresses satisfactorily, vegetarian diet is allowed, but on no account must a full meat diet be permitted. The dietetic restrictions are based on common sense rules. Commence treatment with a brisk saline purge. Henceforth it is probably better to rely on the use of the enema, as continued purgation may

devitalise the patient, and, in my opinion, may even increase the tendency to toxæmia. Hot water by the mouth night and morning helps to eliminate the toxin. Hot wet packs may be cautiously tried when the patient is not improving. When, in spite of treatment eclampsia is threatening, subcutaneous injections of normal saline are indicated.

If in spite of the treatment as above outlined the symptoms of renal insufficiency persist or grow worse, especially if twitchings or other ominous signs such as pain in the epigastrium should develop, the pregnancy should be terminated. Another danger signal in threatened eclampsia is a persistently high blood pressure; 150 m.m. Hg. or higher. In my opinion where the blood pressure (systolic) is high or shows an increase day by day for few days, in the presence of epigastric pain or other serious symptoms, the pregnancy should be terminated. How should this be done? In multiparæ simple rupture of the membranes is usually sufficient. In primiparæ induction of labour is a slow process. Various methods are advised, such as packing the cervix and lower uterine segment with gauze followed by puncture of the membranes and insertion of the colpeurynter; vaginal cæsarian section, etc.

When in spite of adequate prophylactic treatment (starvation for some days, etc.) the patient is getting worse, in the case of primipara, I am of opinion the pregnancy should be terminated by abdominal cæsarian section performed under spinal anaesthesia. General anaesthetics are very dangerous in threatened eclampsia because of their destructive action on the liver, kidneys, and blood. This effect is more marked with chloroform than with ether. I look upon the use of spinal anaesthesia in these cases as a life-saving procedure. The mortality of eclampsia is from 20 to 45 per cent. for the mother, and 30 to 60 per cent. for the child.

It is of the utmost importance to note that in the last hundred years, in spite of our marked advances in surgery and medicine

there has been practically no amelioration of the high death rate. In a subject such as this, I contend that these continued bad results in themselves condemn the methods of treatment which are generally accepted by the medical profession to-day. A few years ago most people who suffered from what was called "inflammation of the bowels" were allowed to die. Then, when the appendix was shown to be largely responsible for these cases, results began to improve in proportion to the early date at which the appendix was removed. To-day a practitioner who would knowingly allow an appendix to go on till rupture of the abscess occurred before advising operation, might rightly be held guilty of malpractice. I am of the opinion that time will come when any practitioner who allows a case of threatened eclampsia to go on to convulsions without terminating the pregnancy will be held equally culpable. It appears to me to be as irrational to allow the pregnancy to continue in such cases as it is to leave the inflamed appendix in the abdomen.

A more accurate idea of the progress of cases of threatened eclampsia will be possible in the near future by the closer study of the blood chemistry of the patient. According to Chase (2), patients with more than 5 mg. of creatinine in the blood generally die—the normal being 2 mg. It is useless to terminate the pregnancy when the albuminoid and fatty degeneration of the liver have reached a stage incompatible with life.

It might be of some interest to cite a case which recently came under my care.

Patient Mrs. B.—age 27 years—par. 1. She consulted me on 10th November, 1921. She was then 8 months pregnant. She had

marked œdema of both lower extremities extending up as high as the hips. Both hands were swollen. She complained of severe headache. Examination of the urine showed a large amount of albumin and microscopically casts and blood were found. Treatment: She was put to bed and brisk purgative administered. For three days nothing but water was given by the mouth. The œdema diminished; on the third day her headache was much better, and she was allowed a little milk in addition to the water. She was put on urotropin Gr.v., t.d.s. On the 16th she complained of severe epigastric pain; the headache returned and twitching of the hands and face was observed. She was markedly somnolent. On the 15th her B.P. (S) was 140; on the 16th B.P. (S) 150. Quantity of urine 20 ounces; large amount of albumin present. I now decided to terminate the pregnancy by abdominal cæsarian section under spinal anæsthesia. Apophesine (1 4-5th grains) was injected intradurally; the needle being inserted at the second lumbar interspace. Complete anæsthesia and relaxation were obtained in a few minutes. The operation was performed in the usual manner. When the baby was extracted its heart was beating, but efforts to induce breathing were fruitless. Following the operation the patient's general condition rapidly improved and she left the hospital on 16th December feeling extremely well, although there was still a trace of albumin in her urine. Examination of urine on 24th December showed that the albumin had completely disappeared.

References: (1) De Lee's *The Principles and Practices of Obstetrics*; (2) Chase, *Value of Chemical Blood Examinations: Medical Clinics of North America*, September, 1919.

## URL:

[www.nzma.org.nz/journal-articles/prevention-of-eclampsia](http://www.nzma.org.nz/journal-articles/prevention-of-eclampsia)