

Remarks

ON

PUERPERAL ECLAMPSIA.

Being the Introduction to a Discussion at the Midland Medical Society on Jan. 27th, 1915,

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MR. PRESIDENT, LADIES, AND GENTLEMEN,—For the purposes of this discussion I will divide the subject into the following sections: I., Prophylactic Treatment; II., Treatment of the Fits and of the Toxæmia; III., Obstetrical Treatment.

I.—PROPHYLACTIC TREATMENT.

As regards prophylactic treatment there can be no doubt that in many cases in which the disease is threatened it can be warded off by appropriate means, and success depends on an early recognition of symptoms of the pre-eclamptic state; these are numerous, but I should say that the most constant and important are: albuminuria, persistent headache, and œdema. Other symptoms may be disturbances of vision and hearing and vomiting. One prodromal symptom which is not common, but which when it occurs is, in my opinion, of most unfavourable prognostic import, is severe epigastric pain. The albuminuria associated with eclampsia, in which there is usually a large amount of albumin present, is practically confined to the later half of pregnancy, cases of eclampsia before then being rare. Pronounced albuminuria in the later months is a dangerous complication for both mother and child, and the danger of the condition is greatly increased by the fact that it is so often unrecognised and untreated until the sudden onset of a convulsion calls attention to the case.

It should be made a rule to examine the urine of every pregnant woman in the latter half of pregnancy, and the examination should be repeated at intervals, shorter as full term approaches; if this rule were adhered to the death-rate from eclampsia would be greatly reduced. It should always be borne in mind that a haze of albumin may be due to mixture with vaginal discharge, so that if albumin is present in the specimen passed by a patient we should never base a diagnosis or treatment on that, but should examine a catheter specimen. If, on the other hand, there is no albumin in the specimen voided by the patient it will not be necessary to pass a catheter. If albumin is present a microscopical examination and an estimation of urea are advisable. Statistics show that this disease is more likely to occur in primiparæ, and in my experience it has seemed that its occurrence was more to be feared in well-developed women who had been in the habit of taking a large amount of exercise and eating much solid food.

When albumin is found in considerable quantity in the urine of women in the later months the case should be taken in hand at once. In the first place the patient should be confined strictly to bed, and it is a very good plan to commence the treatment by giving nothing whatever but water for the first 48 hours. Afterwards milk, well diluted, may be given, and the diet should be limited to that until there is distinct improvement in the secretory function of the kidneys. Free purgation is essential,
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and for this purpose 30 gr. of pulv. jalapæ may be given, or sodii sulph. $\mathfrak{z}\text{i.}$, in water $\mathfrak{z}\text{ii.}$, every two hours, until free purgation is produced. Rectal injections of normal saline may be given after the bowels have been well emptied, or saline may be given sub cute. If in spite of this treatment the renal secretion does not improve, or if prodromata of eclampsia come on, the difficult question of induction of premature labour presents itself. On the whole, I am inclined to advise that labour should not be induced. I have seen some most satisfactory cases in which the treatment already set out has been followed by spontaneous delivery without the occurrence of eclampsia, even when the patient has seemed to be on the verge of an attack.

II.—TREATMENT OF THE FITS AND OF THE TOXÆMIA.

The practitioner is generally sent for as soon as a fit has occurred, and in some cases it will happen that there will have been no prophylactic treatment because the patient had not been under medical care, and neither she nor her friends will have suspected that anything was wrong until they are alarmed by the occurrence of a fit. The patient should be at once put to bed in a darkened room and preserved from all external causes of irritation as far as possible. An efficient nurse should be obtained, and she should be instructed that if another fit comes on the patient should be watched carefully to see that no harm befall her, as by suffocating in the bedclothes or falling out of bed. During the fit a piece of wood should be placed between the teeth to prevent the tongue being badly bitten. It is a good plan to place one side of the bed against the wall, as the nurse can then more easily control the patient. During the coma which follows a fit the head should be brought to the edge of the bed and turned well over on one side so as to allow saliva to escape and prevent it entering the trachea.

I may say here I am sure that those who have had cases of this kind among the poor will have appreciated the advantages of obtaining admission for them to the Maternity Hospital, which, if only for the treatment of this disease, has proved a most valuable addition to the charitable institutions of the city. If the patient is able to swallow she may be given water, but no food, not even milk, should be given. A quickly acting aperient may be given, and one of the best is croton oil $\mathfrak{m}\text{ii.}$, made up with powdered sugar and placed on the tongue; in addition a copious enema of soap and water may be given, and when this has acted a further rectal injection may be slowly given of 4 ounces of water containing 2 ounces of sulphate of magnesia. If the apparatus is at hand it is also well to wash out the stomach. Poultices to the loin probably encourage action of the kidneys, and at all events can do no harm. I am not in favour of hot-air baths. One of the few methods, in addition to purgation, upon which almost all writers are agreed is the administration of subcutaneous or intravenous injections of saline; chloride of sodium $\mathfrak{z}\text{i.}$ to the pint, or, better still, $\mathfrak{z}\text{i.}$ each of chloride and acetate of sodium; the salt may be obtained ready for use in glass containers, and Horrocks's small saline infusion apparatus is in my opinion the best and simplest, and should be carried in every midwifery bag.

Before proceeding to discuss the obstetrical aspect of the question I will refer briefly to some of the numerous other methods which have been advocated for dealing with the fits and toxæmia,

and I hope that we may hear their virtues or faults described in the discussion.

Chloroform.—If any operative interference is contemplated, even such a small procedure as puncture of the membranes, chloroform should be given, but I am entirely opposed to the method so frequently adopted of attempting to control the convulsions by its continuous or intermittent administration.

Morphia.—This treatment has been extensively advocated of late years; it is given by hypodermic injection in an initial dose of $\frac{1}{2}$ grain and subsequent doses of $\frac{1}{4}$ grain until a total amount of 2 grains has been reached. I have tried it, but have not been convinced of its advantages, and have not used it lately, and I would say the same of *venesection*.

Thyroid extract in doses of 30 to 40 grains has been suggested by Nicholson, of Edinburgh, who reports good results from its use.

Nitro-glycerine in subcutaneous injection up to 5 minims has been tried with successful results by Dr. McCarthy, one of our past presidents, and I have no doubt some of those present may be able to speak of its use.

Veratrum viride has been extensively used in America, and recently Haultain, of Edinburgh, has brought forward several successful results from the hypodermic injection of veratrine. This remedy is said to be particularly indicated in cases of high pulse tension.

Pilocarpine has been extensively used, but on account of its tendency to increase bronchial secretion it is, in my opinion, a dangerous drug.

Oxygen inhalation in cases where cyanosis is a marked symptom would be highly desirable.

Cold baths are said to be useful in cases in which hyperpyrexia is a marked symptom; this is a not infrequent complication of eclampsia, and is one of bad prognostic import.

Decapsulation of the kidneys and lumbar puncture have both been advocated and practised, but only to a limited extent, and apparently without any striking success.

III.—OBSTETRICAL TREATMENT.

There have been many differences of opinion revealed in the methods of treatment we have already been considering, but when we enter on the consideration of the obstetrical treatment we might describe the authorities as being divided into two hostile camps, their actions depending in a large degree on the views they hold as to the causation of eclampsia. The one, which I may call the Rotunda school, believes that the toxin is elaborated from the food taken in by the mother owing to some faults in her metabolism. The other, or what I may call the German school, considers it to be due to the foetus, and has advanced the theory recently that the symptoms are due to placental albumin finding its way into the maternal blood-stream in quantities greater than can be dealt with at the time by the antibodies which are elaborated to deal with it. It is on the presence of these antibodies in the maternal blood that Abderhalden's serum test for the diagnosis of pregnancy is based. Those holding the first view advise little or no interference with the process of labour; while to those holding the second no methods are too radical—induction of labour, accouchement forcé, vaginal and abdominal Cæsarean section being each advised in particular cases.

Personally, if labour has started and can be terminated quickly under an anæsthetic by forceps I

should not hesitate to interfere, but the difficult cases are those in which severe eclampsia is in progress, fit succeeding fit, with no lucid interval, and in which there is no sign of labour, the os remaining closed and the cervix not taken up.

I have treated cases of this kind on both the expectant plan and on the lines of active interference. In an article on the treatment of eclampsia which I wrote three years ago for Latham and English's "System of Treatment" I stated that, on the whole, I thought that the results from interference were slightly better than those obtained when no steps were taken to evacuate the uterus; since then, as a result of further experience of the policy of non-interference, I am inclined to modify those views, and the results in the last case which was under my care were so striking that I may perhaps be pardoned for quoting it.

The patient was admitted to the Queen's Hospital, Birmingham, on Dec. 1st last on the recommendation of Mr. Sydney E. Price, of Dudley Port. She was a primipara, 28 years of age, well developed, and in the seventh month of pregnancy; she had been having fits for about 48 hours and had had more than 80 altogether.

On admission the patient was œdematous, comatose, and her heart-beat was 160 and the pulse uncountable at the wrist. She was given an enema and subsequently a rectal injection of \mathfrak{z} ii. magnes. sulph. in water. Two pints of saline were then injected slowly into the submammary region. She was admitted at 1 A.M. No obstetrical treatment was adopted, and at 7.30 A.M. she delivered herself of a stillborn male child by the breech; the placenta did not come away and had to be removed by hand. During the day she had another subcutaneous saline and mag. sulph. injection by rectum every six hours. She remained completely comatose for 36 hours, then slowly recovered consciousness and began to pass urine, and left the hospital well on the ninth day after admission.

This case was a striking illustration of the success of this line of treatment, which was carried out entirely by Miss Hemingway, my house surgeon, to whose persevering and careful attention the patient largely owes her life. If we decide on an active line we have a large number of measures open to us, and I will briefly consider these. They are puncture of membranes; bougies; packing the cervix and vagina; tents; rubber dilating bags; digital dilatation or dilatation by Bossi's dilators, followed by version or forceps; deep incision of the cervix, including the so-called vaginal Cæsarean section; and abdominal Cæsarean section.

Puncture of the membranes can be done with little disturbance of the patient, and is a harmless proceeding; it rapidly diminishes intrauterine tension, but as a means of inducing labour it is very uncertain in the time it takes; if done, every anti-septic precaution should be taken.

As regards the other methods, I would say emphatically of the slow ones (under which I include bougies, tents, packing of the cervix and vagina, and rubber dilating bags, including that of Champetier de Ribes) that they are contra-indicated in the treatment of eclampsia, and if there is one thing about which I am convinced in this question it is that interference, if decided upon, should be by rapid methods under anæsthesia, and I would select dilatation by Bossi's dilator or vaginal or abdominal Cæsarean section. I think that, on the whole, for this class of case the form of active treatment likely to be least prejudicial would be abdominal Cæsarean section, but I feel convinced that if a good trial be given to the milder methods it will be found that the results will be better than those obtained by the most heroic operative procedures.