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LECTURE ON THE MANAGEMENT OF NORMAL LABOUR AND THE PUERPERIUM[1]

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THE definition of a normal labour is a very difficult task. It is usually defined as one in which the vertex presents and the child is expelled by natural efforts within twenty-four hours. Strictly speaking, this includes a large number of labours which are anything but normal.

Before taking up the consideration of how to manage an ordinary labour, let us first consider what we should carry with us in the midwifery bag. The bag itself should be of a fair size, and have a canvas lining which can be removed and washed.

Contents.

1. A good pair of all-metal long forceps. I prefer axis-traction ones (Milne-Murray's).
2. A douche with a long curved channelled glass nozzle. A form known as the Rotunda douche is very useful, but I prefer a rubber bag known as the Alpha douche.
3. A Higginson's syringe for giving enemas with.
4. A long silver or glass catheter.
5. An antiseptic. Perchloride of mercury pellets are very handy, but I prefer lysol, as it does away with the need of a greasy lubricant.
6. Chloroform.
7. Ergot, but ergotin or ergotinin for hypodermic use is of much greater value.
8. Nail brush.
9. Scissors, curved needles, needle-holder, silkworm gut and catgut.

Besides these it is always well to carry a bottle of ether and one of Battley's solution, or some other form of opium, and a hypodermic syringe, with tabloids of ergotinin, morphia, and strychnine.

In reference to the kind of bottles to carry, the ones I use are enclosed in metal cases. They were originally intended for scent, I believe. They are much handier than the usual

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boxwood cased ones, the tops of which so often jam when you are in a hurry to open them.

When the expectant mother engages you for the confinement, usually several months before it is due, you should make enquiries as to her former labours, if she is a multipara, and in all cases enquire how her general health is, especially if she has headaches and if her legs swell. Should she complain of headaches or swelling of the legs, get a specimen of her urine and examine it for albumen. If her former labours have all been difficult, you may expect the same. If she is a primipara, instruct her how to care for her breasts, by drawing out the nipples and bathing them with a spirit lotion for the last month of her pregnancy. Always enquire who is to attend on her during the labour and puerperium. If she is to have a regular nurse, you had better have an interview with the nurse, and instruct her to get an aseptic bed-sheet and aseptic napkins.

When you are sent for go at once. On your arrival enquire if she is having pains, when they began, how frequently they are recurring, and where she feels them. Also enquire if there is any discharge, and if the waters have come away. If the patient is not in bed, she should go there to enable you to examine her.

A word or two about the proper arrangement of her bed. If she has a trained nurse, that is part of the nurse's duties; but many patients cannot afford a trained nurse, so you must see to the bed yourself. A feather bed is an abomination which is fortunately not often seen now. A firm hair mattress is the best; but, of course, you must make the best of whatever is to hand. A macintosh sheet is usually put over the bed, then the ordinary sheet, and above that a smaller macintosh with a folded up draw-sheet, or blanket, or, what is much better, an obstetric bed-sheet. Gamgee tissue does nicely for this. In many cases macintosh sheets won't be available. Newspapers, or ordinary brown paper, make a very good substitute. You must use several plies of them in the same way as the macintosh sheets. I strongly advise you to see to the bed yourself if there is no trained nurse, as the majority of women have no idea of properly protecting their beds. Another thing you should see to is, that the patient's night clothing is well drawn up round her, to prevent the bottom part becoming soiled.

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Examination of the Patient.

You must first take off your coat, roll up your sleeves above the elbows, and wash your hands and arms thoroughly with warm water and soap, scrubbing the nails well with the brush. Then soak your hands in an antiseptic solution (1-1000 perchloride is the most powerful). I use lysol (1 per cent.). Now palpate and auscultate the abdomen. By this you can learn if she is pregnant, if she is in labour, and if the child is alive, and also whether it is a longitudinal or transverse presentation. Other conditions may be made out by palpation, such as twins, hydramnios, etc. The position of the presenting part may also be made out. Routine palpation of the abdomen is unfortunately generally omitted in ordinary cases, but you should do it in all, as you learn a great deal from it.

Before making your vaginal examination sterilize your hands again and have the external genitals of the patient thoroughly washed with an antiseptic. A trained nurse can do this for you, but if you have no nurse do it yourself. I use lysol for this. Creolin does equally well, as they are both soapy solutions. See that you get clean wool or a clean rag or handkerchief to do it with. Never under any consideration use the domestic sponge or piece of flannel. The patient should lie on her left side with the legs well drawn up and the hips near the edge of the bed. Have the buttocks exposed so that you can see what you are doing, and don't attempt to make an examination by lifting the clothing out of the way with the examining hand. Aseptic midwifery cannot be done in the dark, under bedclothes which are generally anything but surgically clean. There is nothing indecent in this slight exposure of your patient, and she will not object if you explain the reason. The examining hand must be soaked in clean warm lysol solution, and the fingers must not be allowed to touch anything before being inserted. If you use lysol you do not need a greasy or oily lubricant. If you must use one it should be contained in a collapsible tube. Examine between the pains. You make out if she is in labour, what stage, and how far on, presentation, position, condition of the membranes, and the state of the passages. Continue the examination during a pain. If the os is not fully dilated, and the membranes are intact, be careful not to rupture them. If

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everything is right tell the patient, but if you find anything abnormal do not tell her, but tell some responsible person and warn her not to alarm the patient. You are sure to be asked how long it will take before the child is born. Never commit yourself to any definite time, for if you do so and the child is not born within that time, the patient will lose confidence in you.

See that the attendant has ready plenty of hot water, a binder, napkins (aseptic preferably, I mean woodwool ones: all napkins should be aseptic). Ligatures for the cord—not tape, a clean sheet, and a change of clothing for the patient as well as the baby's garments. Everything should be well aired before the fire. There should always be a fire in the room.

If the labour is just beginning and you find the patient's bowels have not been freely moved, she should have an enema administered of soap and water with some castor oil in it. If you have no nurse you had better give it yourself. In the early stage the patient may be left with instructions that you are to be sent for as soon as the waters come away. If the os is the size of five shillings, and the pains are at all active, you had better stay in the house, but not in the patient's room. She should be allowed to move about the room during the first stage, and tell her not to bear down. Examine as seldom as possible, always using the precautions I have already indicated regarding your hands and the external genitals. When the membranes rupture, if she is not in bed she should go there at once, and you should make a vaginal examination for fear the cord may have been swept down with the rush of fluid. Before the membranes rupture there is practically no danger to either mother or child in ordinary cases, but as soon as the liq. amnii drains away, risk to both begins.

The second stage has now commenced when the os is fully dilated and the membranes have ruptured. The patient must keep in bed, and you should encourage her to bear down as much as possible. Her sufferings will now be great. The great pain in the back may be eased a little by firm pressure. It may be necessary to give her a little chloroform. Give it during the pains. As the head comes down and bulges the perineum, the expulsive efforts will become greater and the suffering greater. It may be necessary to give more chloroform. A pillow should be put between the knees, or some one should

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hold up the right thigh. If the perineum is rigid hot fomentations may help to relax it. Supporting the perineum generally does more harm than good. Some good may be done by putting your right hand flat over the anus with your fingers on one side of the vulva and your thumb on the other, then push the whole structure forward in the direction the head is going, not backward as you see frequently done. Your left hand should at the same time be passed between the thighs from the front so as to grasp the head and keep it flexed as much as possible. As soon as the head is born see if the cord is round the neck, and if it is, slip it over the head or shoulders. If it is too short to allow of this, cut it and deliver quickly. Do not hurry the birth of the trunk unless there is some reason for doing so, and try to prevent the shoulder tearing the perineum. The left hand should follow the fundus down as the body is expelled.

The child's eyes should be wiped at once and all mucus freed from the mouth. It will usually cry, but if it does not, invert it and give it a smart slap or two. If this does not suffice, artificial respiration will be necessary. As soon as it has cried freely, tie the cord in two places, 2 in. and 4 in. from the abdomen, and cut between. Use a thread ligature and not tape, and be sure it is tied tightly and that there is no oozing. Cut it on the palm of your hand, for fear of wounding some part of the child.

While you are doing this, the attendant should have had her hand on the uterus kneading it gently. Keep up this kneading for a little, and you will usually feel the uterus contract and expel the placenta into the vagina. When you feel it slip down, press firmly downwards and backwards and expel it from the vagina. The patient should be lying on her back. If you cannot expel it this way, hook a finger into its lower edge. The membranes should be got away by twisting them round. Examine the placenta and membranes, and if everything is not complete you should explore the uterus at once. If the placenta does not come away in fifteen minutes or so, try firm pressure downwards and backwards. If this is of no avail after half an hour or so, introduce your hand and peel the placenta off. Your hand must be thoroughly aseptic. It can easily be done without chloroform, but it is a painful proceeding.

You should always examine the perineum immediately after

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the child is born. If it is torn, you may stitch it at once or wait until the placenta is away and then do it. Silkworm gut is the best suture for the deep ones, and see you put them in deep enough to catch up the whole tear. Superficial ones of cat-gut may be necessary as well.

Your patient must now be cleansed, and all the soiled things must be removed. Wash her thoroughly with an antiseptic solution, and apply an aseptic diaper. Put a clean, well-aired draw-sheet under her. Do the cleansing yourself and trust to no attendant. A binder should be applied firmly if the uterus is well contracted. If her night-dress is soiled have it changed at once.

You will notice I have not mentioned a douche. In an ordinary labour it is not necessary, and will probably do more harm than good. In *A Practical Handbook of Midwifery* I find the following advice:—"Make attendant give an antiseptic vaginal douche, and make patient clean and comfortable, and apply diaper to vulva." At the beginning of the chapter on management of labour the writer says, "Be above all things cleanly and aseptic." The latter advice is excellent, but the first is a very grave mistake. What is the use of being cleanly and aseptic yourself if you delegate such an important duty to an attendant, who, if she is not a properly trained nurse, will know absolutely nothing about antiseptics. Suppose it were an amputation you were doing, would you, when it came to the cleansing of the part and dressing of the wound, ask an attendant to syringe the wound with a Higginson's syringe, with which an enema had probably been given an hour or so before? The thing would never be dreamed of, and yet we have teachers of midwifery advising just such a proceeding in reference to a midwifery case. Can one wonder that in private midwifery practice sepsis is still so rampant.

If a douche is necessary, give it yourself, using a continuous douche and a glass nozzle. I have already, in a former lecture, fully described the method of douching and the cases it is necessary in immediately after labour. The binder should be put on so as to grasp the trochanters below. Pull it tight, except at its upper part. See that the uterus is firmly contracted before applying it. Pads over the uterus as a rule are not necessary. If the pulse is quick, 120 or so, and does not slow down, be on your guard for hæmorrhage.

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A routine practice of giving ergot in all cases is sometimes carried out. It is not necessary unless there is hæmorrhage or the uterus remains flabby. Never give it until the placenta is away.

Your patient should be allowed to rest a little and then be given some slight nourishment, such as a cup of tea. In ordinary cases stimulants are not necessary. If the labour has lasted any length of time she should have had some nourishment during the time, such as a cup of beef tea or extract of meat of some kind. Don't allow her to take alcohol in ordinary cases during the labour. After she is rested and has had some nourishment, the child may be put to the breast. This encourages contraction of the uterus.

Give instructions about her diet. For the first three days it should be chiefly fluid, tea and toast, and milk food. After that she can have fish, and then meat, but still give a good deal of milk.

Before leaving her, see that the pulse is slow, at all events under 100, the uterus well contracted and not much discharge. Enjoin quietness and forbid visitors. Instruct the attendant to change the napkins when soiled and to wash the external parts two or three times daily with warm water with Condy's fluid, or some other non-poisonous antiseptic, in it. Also instruct her to change the draw-sheet when soiled, and forbid her stowing soiled things under the bed. They should be removed from the room at once and the washable ones soaked. The others should be burnt. Return in about twelve hours or so and never forget to inquire if she has passed urine. If she has not done so, get her to try on her knees over a chamber pot with hot water in it. If she fails, draw it off. In doing this, use a silver or glass catheter, which thoroughly cleanse by boiling. In passing it, first, thoroughly cleanse the vulva, specially wiping the meatus, and pass the catheter by sight, not by touch. If you do it by touch you will be almost sure to carry some of the lochia into the bladder.

Take the pulse and temperature, tighten the binder if necessary, and see how the uterus is. The fundus should be somewhere near the umbilicus slightly higher than immediately after labour. A primipara should not, as a rule, have after-pains. If she has, there is probably something in the uterus. A multipara will usually complain of them. If they are very severe, an opiate may be necessary.

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During the puerperium, visit your patient at least once a day for the first five days. After forty-eight hours, order her an aperient—castor oil is probably the best. If you wish to disperse the milk, give a saline. The pulse and temperature should remain practically normal. There may be a slight rise when active secretion of milk occurs, if the breasts become engorged. The pulse is a more important indicator of the condition of the patient than the temperature. It should be somewhat slower than usual. If it remains above 100 there is something wrong. The uterus should involute steadily after the second day, falling about an inch daily, until by the tenth day the fundus is below the brim of the pelvis. The lochial discharge should remain perfectly sweet if proper aseptic precautions have been taken. It is made up of blood, fragments of placenta, membranes and decidua, while later on cervical and vaginal epithelium, white corpuscles, fat drops and cholesterin corpuscles are found in it. From the third day onwards, numerous micro-organisms are found in it (Winckel). For the first three or four days it is red (*lochia rubra*), consisting of nearly pure blood. This gradually becomes sero-sanguineous (*lochia serosa*) for three or four days, and then creamy in colour (*lochia alba*), due to the presence of white corpuscles. The latter is chiefly mucus.

If the lochia are too profuse there is probably something retained in the uterus. If the odour become offensive the pulse and temperature will rise. An antiseptic douche will then be necessary. Give it yourself, with the precautions I indicated in a former lecture.

Allow your patient, if she is strong enough to rise on her hands and knees, to micturate. This allows of gravity acting and causing free drainage of the uterus and vagina. Allow her to be propped up in bed after the third or fourth day. You may keep her in bed until the tenth day, but among the working classes they are usually up in a week. The tenth day is soon enough to come out of bed for any length of time. I generally allow the patient to be lifted out of bed long enough to have it thoroughly made by the sixth or seventh day if she is quite well.

The breasts must be carefully attended to in order to prevent engorgement and chapping of the nipples. Abscesses are far too common, and in all cases you will find the origin

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is a crack in the nipple through which septic absorption has occurred. Care of the breasts begins before labour, especially in primiparæ. If the nipples are small and depressed they should be gently drawn out several times daily. They should be bathed night and morning with a spirit lotion, to harden them. Equal parts of Eau de Cologne and water or weak whisky does well. The nipples should be washed both before and after nursing, and if a crack appears try to get it healed as soon as possible. Glycerine of tannic acid and sulphurous acid makes a good application. Tr Benzoini Co is also used, and touching the cracks with silver nitrate or pure carbolic. A nipple shield is frequently required.

Many of the details I have gone into may seem to some of you trivial, but if you wish to be successful you must attend to trivial details. The great point is to be cleanly, *i.e.*, surgically clean or aseptic, and your midwifery cases should do well ;—at all events, if anything should go wrong, your conscience will be clear.

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