

The Midwife.

PUERPERAL SEPSIS.*

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(Abridged.)

The sepsis or infection which occurs in a lying-in woman is due to the same organism, which may give rise to a similar condition in any patient, and for its production three things are necessary—the micro-organisms or germs which produce it, which we may call the seeds of the disease, then the tissues which receive the germs, and finally the way in which the germs are introduced into the tissues. In the greater number of cases, the causal agents are strepto-cocci, which, under the microscope, are seen to be grouped in twos and fours and long chains, the germs being arranged in Indian file; while cases may arise from the colon bacillus, which swarms within the bowel, or from the bacillus of diphtheria, of pneumonia, and from some others. The parturient woman offers a very suitable soil for the multiplication of these germs. Changes have taken place in the blood, and it contains waste material derived from the foetus and from the genital organs while they are going back to their normal condition. The blood vessels and lymphatics in the pelvis are increased in size, and the nervous system is more than usually irritable. The external orifices are always infected with germs, and the lower part of the vagina contains large numbers, which, fortunately, are not always of a virulent nature. The uterus itself under normal conditions is sterile, as also are the Fallopian tubes. During labour the liquor amnii in the course of its discharge from the uterus washes away matter from the vagina; and this removal is further effected by the passage of the foetus and of the afterbirth, which at the end of the labour acts very much as a large sponge.

The germs may be received in any part of the genital system, through a tear in the perineum or the vaginal wall, especially when the labour has been long and tedious and the pressure of the foetal head has produced a certain amount of bruising, which renders the tissues more susceptible to infection, or through a laceration in the cervix caused by the passing of the foetus through it, but most frequently the site of infection is where the placenta has been. Here is to be found a large wound, the orifices of the blood vessels and lymphatics not thoroughly closed, and opening on to a cavity—that of the uterus, which is poorly drained, and always contains for the first few days after childbirth more or less blood clot.

From these sites the infection may spread to the tubes, to the peritoneum, or the broad ligaments, and may cause a phlebitis in the surround-

ing veins, or passing into the blood stream may give rise to general infection or septicæmia, which may affect all the organs of the body. We may have a septic intoxication in which a single dose of poison is received into the body, a septic infection in which the germs and their poisons go on increasing in number and virulence, or even pyæmia with the formation of abscesses in various parts.

The germs in most cases of puerperal sepsis are introduced into the tissues from without, either in the course of labour or after it, the liability to infection decreasing daily. It has been questioned if self-infection is possible in the case of a lying-in woman, but that this is so is admitted, although acknowledged to be rare.

We must ensure, in order not to run any risks unnecessarily, as complete a sterilisation as possible of hands and instruments; unfortunately, the hands are always contaminated with germs, and their complete removal is impracticable. But enough can be done by the nurse to render her hands sufficiently clean for attendance with safety at a labour. The skin should be kept free from roughness, for a rough skin harbours many germs, and the scales are apt to become detached, and may carry infection. The nails should be kept short, and all tags of skin at their bases removed; while the use of the nail brush should prevent them from ever being "in mourning."

All instruments and glass or rubber appliances should be sterilised by boiling, and one of the many portable sterilisers is a useful addition to the nurse's outfit. The prospective patient should be advised to wash the external parts with soap and water daily at least for some time before delivery is expected, and when it has commenced the nurse should do it thoroughly, and then swab them with an antiseptic solution, and this should be repeated after every examination. Great attention should be paid to the anal region which should be thoroughly washed, especially after the passage of any faecal matter, though this should not occur if, as should always be done, an enema is administered early in the course of the labour.

A douche is not to be used in a normal labour nor after a forceps delivery unless there be some special reason for so doing, but after the introduction of the hand into the uterus it is advisable to give a good hot antiseptic douche.

The best preventive of puerperal sepsis is to secure a thorough contraction of the uterus, which lessens the probability of any absorption and the complete removal of all fragments of placenta or membranes, and also as far as possible of all clots. These after a time decompose, forming favourable media for the growth of germs and also prevent the proper involution

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