undeniable fact of sepsis in the maternal passage: as evidenced by conjunctival infection in the newly-born child. It can be shown also that, in making such examinations, we are reversing and largely annulling the methods that nature brings into play to sterilise the vagina and wash out intruding organisms.

One of the earliest changes in the uterus, on conception, is œdema of the cervix, which steadily progresses throughout gestation. Whatever its cause, my opinion is that it subserves a purpose over and above that of increasing the dilatability of the cervix. With the progress of the presenting part, the cervix becomes gradually dilated, and subjected to an increasing pressure. As a result vessels are ruptured, and tears, small or large, occur. The torn vessels are sealed, and from them exudes a copious flow of serum mixed with extravasated blood. The purpose of this serous exudation is, doubtless, physiological, and it is in all probability bactericidal, resembling the flow of lymph after wounds in other parts. Its rôle is probably partly to cleanse the vagina and partly bactericidal to retained organisms.

While all this is a physiological process, and wholly beneficial to the patient, it becomes far otherwise if vaginal examinations are made the rule in labour. Instead of a protection, it may be a menace to life. Granting that the vagina must, in most cases, be a canal harbouring noxious organisms at the time of labour, the danger of introducing a finger, and carrying it up to a wounded cervix is apparent. If the finger is also introduced inside the cervix and swept round between the bag of membranes and the uterine wall, we may be simply implanting colonies of organisms on the uterine wall, and with nothing between them and the uterine sinuses. Now, the organisms which we have shown reason to believe most likely to gain entrance to the vaginal canal are gonococci, streptococci, staphylococci, and *Bacillus coli*. Of these four the one with the power of causing a specific effect is the gonococcus; but it shares with the others the ability of producing non-specific inflammations in other parts of the body. All of them may enter the blood stream and, by causing bacteriæmia, set up inflammatory foci in various tissues. How careful, then, ought we to be to avoid bringing them into contact with wounded surfaces. Of all possible channels for the entry of organisms, vascular lymphatics are easily the first.

Some Guiding Rules.

If the facts that I have endeavoured to make plain are true, what should be our method in the conduct of a case of pregnancy and labour? In my opinion it should be as follows:—

1. The patient should have a general physical examination, and the state of her health should be accurately gauged.

2. At the time of examination the urine should be examined, and the examination should be repeated at intervals of two months.

3. The external diameters and circumference of the pelvis should be taken; also indications of marked lateral curvature, old angular curvature, and past rickets should be looked for.

4. A careful abdominal examination should be made between the seventh and eighth months, or later, if the pelvic measurements are normal, to ascertain the position of uterus and contained fœtus. By training, this method yields accurate results, and the presentation can be determined with practical certainty. The position of the fœtal heart sounds in this connexion is of great importance, and should be always noted.

5. If the patient is a multipara the history of previous confinements should be obtained.

Armed with this knowledge, it will be possible to conduct the vast majority of labour cases without vaginal examination.

Up to the present, it has been too much the fashion to recognise only external sources of infection, and the methods by which they may gain entrance to the maternal passages during labour. The equally important fact that vaginal sepsis is already present when labour starts, as proved by conjunctival infection in the newly-born child, has been waived as absurd, and this important clinical fact not rated at its proper significance and gravity. A few will grudgingly admit that on rare occasions autoinfection may occur. Not on rare occasions, I submit, but on every occasion, should the possibility be held in mind, and a septic canal be as seldom interfered with as the safety of the patient will allow.

PREMATURE BIRTHS.

Speaking at the National Conference on Infant Welfare on the causes of Ante-Natal, Natal, and Neo-Natal Mortality, Dr. Armand Routh said that premature births are so-called if they occur before the thirty-eighth week of gestation.

The proportion of premature births to the total births in lying-in hospitals varied in 1914 from 12.9 per cent. (Queen Charlotte's Hospital, London) to 20.4 per cent. (St. Mary's Hospital, Manchester), and of these 30.4 per cent. and 74 per cent. respectively died before their mothers left the hospitals, and it is calculated that over 50 per cent. of such premature children die during the first twenty-four hours of life. Some of these premature deaths would therefore occur in the "natal," some in the neo-natal period.

The causation of prematurity has not been satisfactorily worked out, but is often due to ante-partum hæmorrhage, toxæmia or undue physical effort or mental strain in the mother, or to mal-nutrition or morbidity in the child, which conditions should be therefore viewed as the primary causes of the fœtal death rather than the resulting prematurity at birth.

previous page next page