instruments and appliances renders its occurrence unlikely even in institutions, and still more so in home-conducted labour, where proximity to septic conditions does not as a rule obtain.

Now, antiseptic measures, more or less of this kind, are almost universally used in obstetric work at the present day and have been for many years; yet, when we examine the result, we find to our surprise that although the epidemics of puerperal sepsis that were common in the days before antisepsis scarcely occur now, yet the yearly mortality due to the disease, not only in this country but in all countries, shows a very unsatisfactory degree of diminution as compared with the results obtained by antisepsis in surgery.

Besides the fatalities a much larger number of grave cases short of death occur. It is impossible to compute this number accurately, but I believe it is not far from the mark to say that for every one woman who dies, four are more or less seriously ill, and besides these there are a very much larger number of cases of slight fever, often seen in lying-in hospitals as well as in general practice, nearly all of which are probably due to minor degrees of sepsis.

The obvious deduction to be drawn from these facts seems to me to be, that the antiseptic precautions in use up to the present time have been efficient in preventing that mode of infection in which septic organisms are conveyed from one patient to another, but that there is some other mode, far more common, for which they are inadequate.

Faecal Infection.

Do organisms capable of producing puerperal sepsis commonly pre-exist in the woman? The answer is Yes; they can be constantly isolated from the lower bowel and perianal skin. The extensive study of infected gunshot wounds during the recent war showed that the more virulent bacteria isolatable therefrom were, in general, excremental in origin—that is, they were derived either from the individual's own faeces, or from the faeces of some other individual, or from the faeces of some animal in the form of manure.

It may be asked if it be true that the commonest cause of puerperal sepsis is faecal infection, why has so simple an explanation of the continued prevalence of the disease been generally overlooked till now? The answer is that the appreciation of the evil potentialities of intestinal organisms is of comparatively recent origin.

It occasionally happens that the obstetric surgeon has the opportunity of observing the processes of puerperal sepsis going on, so to speak, beneath his eye—namely, in cases in which a Caesarean section has perforce to be performed late in labour, when the uterus is already infected. Anyone who has had experience of post-operative sepsis in such a case, and compares the phenomena with those undoubtedly due to infection by intestinal organisms such as may be observed after operations for suppurative or gangrenous appendicitis, cannot doubt that the processes at work are due to faecal infection.

My argument, then, is that that method of infection of the birth canal wherein septic organisms are conveyed from individual to individual, has received disproportionate attention in the past, with the result that the antiseptic measures taught and practised to-day are framed and directed towards the prevention of infection from extrinsic sources, whilst the prevention of the more common type of infection—namely, that by organisms resident in the woman before the confinement—has received but little consideration.

HOW DO THE ORGANISMS GET INTO THE UTERUS?

The most obvious manner in which the organisms could obtain entrance into the uterus is that they should be carried directly there on hands and instruments. That this sometimes happens there can be no doubt, and it is especially dangerous when the introduction takes place after the expulsion of the placenta and membranes has left the uterine wall bare to direct infection. But in far the larger number of cases of puerperal sepsis no introduction of anything into the uterus has taken place, the most that could have happened being the implantation of organisms into the cervix or vagina.

It is therefore certain that organisms transplanted into or originally present in the vagina must in some way be transported into the uterus subsequent to the labour.

THE SITUATION OF THE ORGANISMS IN THE UTERUS.

The situation of the organisms by the time the symptoms of sepsis are produced is of the utmost importance in regard to curative treatment. It is quite rare, in a case of sepsis after full-time delivery, to find a definite mass of retained placenta. This does not apply to septic miscarriage in which retained portions of the ovum are quite commonly found; but the point is that uterine sepsis, taking all cases into consideration, both those after labour and those after miscarriage, occurs quite as commonly with a completely as with an incompletely emptied organ.

I press this point because the presence of retained placental tissue has been made a great deal too much of in the pathology of puerperal sepsis, chiefly owing to the docile acceptance by English obstetricians of the, I believe, totally erroneous assertions of certain German observers some twenty years ago, so that to day "something retained in the uterus," and "the germs that flourish on dead tissue" are stock cliches in the mouths of medical students and student-midwives, and are received as evidence of knowledge by their examiners.

The conclusion we reach, therefore, is that as matters stand to-day, prevention is to be more relied on than cure. The finding of the substance, whatever its nature be, that is the real antidote for puerperal sepsis is probably reserved for some laboratory worker of the future, but in the prevention of the disease every practitioner of obstetrics can take a hand.

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