

tion of carbolic acid, corrosive sublimate, etc. If the phenomena of septicæmia exists in the beginning, vaginal antiseptic injections should be made every two hours or every hour. They often suffice and the complications cease entirely. If at the time of the first visit the symptoms of infection are very grave, or if these accidents do not yield readily to vaginal injections, recourse should be had to intra-uterine aseptic injections, employing a solution of corrosive sublimate, 1 to 2000 or 1 to 3000, or carbolic acid, 2 or 3 to 100, etc. In making these intra-uterine injections care should be taken that no obstacle opposes the flow of the injected fluid; a ready flow can be secured by the use of the horse shoe shaped sound. In this manner the cavity of the uterus is in all probability rendered aseptic, a result rapidly attained, as evident from the cessation of the fetid character of the lochia and the fall of the temperature. General treatment should not be neglected, and we should especially insist on the administration of the sulphate of quinia. This method, practiced at the Maternité by M. Tarnier, and which we have followed at the Charité has given the results mentioned above. It seems to us difficult to improve upon them. It ought not to be implied, however, that this is expectant treatment, pure and simple to which we have recourse. The old expectant plan, good as it was, has come down to our day, improved, thanks to vaginal and intra-uterine antiseptics. This treatment has thus been benefitted by the improvements which have been gradually made upon it.

We will add that this method—expectant and antiseptic, can be followed by physicians and midwives, which is no small advantage.—*Dr. Budin in Progress Medicale.—Obstetric Gazette.*

THE CAUSE AND PURPOSE OF MENSTRUATION.

The object of this paper is to obtain an answer to the following questions: 1. Is ovulation periodic or not? 2. What connection exists between ovulation and menstruation? 3. Is there connection between menstruation and conception? The researches of Raciborsky, Pflüger, Leopold, and others, seemed to prove that there is a decided connection between ovulation and menstruation. Autopsies on many healthy woman, dying suddenly during menstruations, have revealed, in the majority of instances, the presence of a ripe or ruptured follicle on the surface of the ovary. The inference is therefore justifiable that ovulation accompanies menstruation, occurring either before, or just at the beginning, or at the end. This inference, however, is denied by many on the ground that the rupture of the Graafian follicle is known to occur also in the intermenstrual period, whence the opposite inference that there exists no causal relation between menstruation and ovulation.

The weight of evidence at the present day points to ovulation being not dependent on menstruation, and also not periodic. Such being admitted as the case, how are we to account for the periodicity of menstruation? Leopold's explanation is the following: Menstruation is a phenomenon typical of the female organism, its motor cause residing in the ovaries, its immediate source being the uterus. Its periodicity is analogous to other vital phenomena of the organism—pulse and respiration for instance, the rhythm of which we are as unable to account for as for the regularly recurring monthly uterine hemorrhage. F. considers the periodicity of menstruation to be rather analogous to the erection of the penis and ejaculation of semen in the male. The friction on coitus leads in a reflex manner to ejaculation of semen. Ejaculation is speedy after abstinence, the more frequent the act of coition the greater the amount of friction requisite before the reflex is strong enough to lead to ejaculation. Similarly with menstruation. Each ripening follicle is a cause of irritation to the ovarian nervous supply. This irritation is propagated to the sympathetic system and its vasomotor filaments. From the irritation of the vasomotors there result dilatation of the pelvic blood-vessels and hyperemia of the pelvic organs, evidenced by the sensation of congestion and fulness in the pelvis which women experience about the time of the periods. When this irritation becomes powerful enough—it being added to by the ripening of other follicles—there results menstruation, which is the external evidence of the inward congestion. (This theory is rather fanciful, and takes absolutely no account of the not rare cases where conception occurs during lactation, in the absence of menstruation and yet necessarily in the presence of ripening of Graafian follicles.) It having been proved that ovulation goes on uninterruptedly, should not conception be as likely to occur at one time as at another? Heuser has investigated carefully the subject of conception and reached the following deductions: The majority of conceptions result from the coitus occurring within a few days after menstruation. During menstruation, the chances of conception increase the nearer coitus to the end of menstruation. The number of conceptions following coitus before menstruation is small. At no time, however, during menstruation or in the intermenstrual period, is conception impossible. Since, however, ovulation goes on constantly, why, F. inquires, is conception more likely to occur at the end of menstruations and on the few days thereafter? The answer to this question is obtained from a study of the changes which occur in the mucous membrane of the uterus before and after menstruations. From the researches of Leopold and of Wyder and others, these changes may be briefly resumed as follows: Shortly before, during, and partially after men-