badly, namely, operations for closure of the lacerated cervix. I scarcely close a lacerated cervix now at all. I find few cases in which I have to do it, but I have seen so much harm in treating so many cases of pus tubes following trachelorrhaphy, that I think it has done ten hundred times as much harm as it has done good. I agree with Emmet fully in that matter, that it is a serious thing to close a lacerated cervix. But the beginner in gynecology thinks that trachelorrhaphy is a simple thing to do. By doing it we close the passage and we entirely prevent the most important thing, and that is drainage, and I had a good deal rather instruct young men never to do a trachelorrhaphy, but to resort to dilating and curetting, telling them that they will do the patients a great deal more good and very much less harm.

Dr. EMORY LANPHEAR, St. Louis—If you will but recall the pathology which underlies postpartum and post-abortion septic infections you will come upon a common plane. In the case of saprophytic infections we have no implication of the uterine mucosa until very late, in which instance the dull curette or the finger, after proper dilatation, is all that is necessary. When we have the staphylococcus pyogenes aureus, albus and citreus affecting the uterus, then must we remove the infected tissue, which is the uterine mucosa, and which can only be accomplished by the use of the sharp curette. When we have streptococcus infection, no curette under heaven will do the patient one bit of good.

Dr. LEWIS (closing the discussion on his part)—Four years ago, at the time the large dispensary of the Chicago Policlinic was placed in my hands, I had been in the habit for many years of having charge of the gynecologic and obstetric wards of the County Hospital of our city. I had operated on pyosalpinx and the usual diseases, and I had absolutely no knowledge of the cases presenting themselves at the dispensary. The first day I assumed charge there, the first patient who presented herself had a pyosalpinx as far as I could diagnose it, and I advised immediate operation. She said she was unable to go into the hospital because her children were ill and she had to take care of them. The next patient had a laceration of the perineum with rectocele; I advised operation in her case, and for sociologic or economic purposes, she was unable to accept that advice. And so it went on, case after case appeared at the dispensary which in my judgment required surgical interference, and they were unable to accept the advice I gave them. Under the circumstances I felt it was necessary to do something, and I persisted in the treatment which I have outlined to you today, and the results were gratifying, and in many instances most surprising, to me. For that reason I have taken the opportunity of presenting to you cases that will prove very surprising to others as well as myself.

I should like to go into the subject of the use of the curette, but time does not permit, and I will say nothing further about it, except to remark regarding the statement made by one gentleman who spoke of perforations of the uterus, and intimated that the sharp curette was responsible for such perforations more frequently than the dull curette. As a matter of statistics, the uterus has been perforated with dull instruments more frequently than with sharp curettes. The probe, the uterine sound, and the silver catheter have caused more uterine perforations than sharp instruments. This is simply a matter of statistics, which I have looked up.

Dr. GRANT (closing the discussion on his part)—There was one statement made by one of the speakers which I think should not go unchallenged, namely, that because the infection has gone beyond the uterine endometrium and has infected the tubes, it is useless to remove the diseased condition in the uterus. I do not think any more fallacious surgical principle could be advanced, that simply because we can not reach the disease all at once we should do nothing. That is about the feeling of the criticism of one of the speakers, who believes that we should not curette a uterus which is really the *fons et origo* of the trouble. The most important thing is to scrape away all of the diseased tissue that has caused the trouble and which if left continues to infect neighboring structures.

I very much regret that some of those gentlemen in the discussion did not devote a little more time to those cases of gonorrheal origin which are so very frequent and of very great importance. I was in hopes of hearing something from some of my distinguished friends here in reference to the early treatment of these cases. They are certainly common and overlooked. These cases should be curetted more frequently.

With reference to the question of curettage and drainage, one of the gentlemen made the statement that this practice might cause infection on account of the free raw surface which is made by the curette. I have stated that if the septic material is thoroughly removed there was very little danger. As a matter of fact, there are few men who have had a large expe-

rience in the early treatment of gonorrheal cases of this form. That is why I introduced the cases I did in which I have had a surprising experience.

PROPHYLAXIS OF DISEASES OF WOMEN.

Presented to the Section on Obstetrics and Diseases of Women, at the Forty-ninth Annual Meeting of the American Medical Association, held at Denver, Colo., June 7-10, 1898.

BY DAVID W. BASHAM, M.D.

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Since the science of hygiene is justly allowed to occupy so important a place in the literature of general medicine, I deem it a duty incumbent upon those engaged in gynecologic and obstetric practice to endeavor to elevate the prophylaxis of the diseases of women to the same exalted plane.

Generally the average gynecologic essayist, disdainful to concern himself with the ordinary affairs upon which our clients so much need good and wise counsel, endeavors to elucidate his own or some fellow practitioner's method of extirpating the internal genitalia, or some part thereof, from the female pelvis. All of this is laudable, because it serves a beneficent purpose as concerns both mankind and the profession of medicine. But if it be noble and great to emancipate the human body from disease and suffering by the dexterous use of the scalpel, scissors, and sterilized catgut sutures, how much better is the rendering of these appurtenances of our art unnecessary. This paper is not an argument for conservatism in the treatment of existing pathologic conditions, but a simple effort to disseminate the doctrines of preventive therapeutics. As often as I am called upon to disembarrass a patient of important organs rendered useless and intolerable through pathologic metamorphoses, the result, perhaps, of a non-aseptic accouchement, I promise myself to labor with renewed assiduity to inculcate the tenets of preventive medicine, which shall be the medicine of the future.

Owing to the anatomic construction of woman, the female pelvic organs are far more vulnerable to the influence of pathogenic agents than are the analogous organs in the opposite sex, because in the former a readier and more commodious medium of communication exists between the cavities of the genital tract and the atmospheric world. The same anatomic design conduces to the easy genesis of pathogenic micro-organisms within the series of cavities constituting the genital system. This arrangement, which is indispensable to the perfect operation of the viviparous plan of reproduction, which provides that after having attained a certain stage of development within the maternal body, the fetus shall be forcibly extruded into the world, unavoidably entails a greater or less degree of traumatism to all the structures concerned. These facts serve to explain why the pelvic organs in woman are so much more frequently the seat of pathologic changes than the same organs in man. All of the elements necessary to the process of infection are present in the act of childbirth, and also in a less accentuated form in many other acts inseparable from the functions peculiar to woman. The things requisite in the process of infection are: violence, to produce a breach in the tissues sufficient to admit of the ingress into the circulation of germs or putrid material, and the existence of certain conditions which facilitate the introduction of such germs or putrid material into the cavities of the system of hollow organs known as the genital tract, and

where the breaches into the circulation exist, and where also are found fluids and coaguli to serve as media and nidus wherein rapid multiplication takes place. The question of prophylaxis of diseases of the female pelvic organs then resolves itself into two principal propositions: the first of which consists in the minimizing of traumatism to the genital mucosæ, and the second is the preclusion of the introduction of disease micro-organisms from the extraneous world into the hollow organs constituting the genital system.

It will be seen then that the major part of gynecologic prophylaxis rests in the degree of perfection with which the art of obstetrics is carried into practice. It is a fact beyond refutation that an enormous proportion of all gynecologic affections have their origin in the parturient act, and the week in bed that follows. Endometritis, salpingitis, ovaritis, cystitis, and nephroptosis, are some of the conditions which are often simply sequelæ to the act of parturition and the puerperal month.

So much depends upon the work of him who essays to minister to the needs of woman in the hour of travail, that it is not easy to overestimate the importance of the offices of the accoucheur in the matter of diminishing the frequency of pelvic diseases in the female. The scientific obstetrician has well accomplished his duties, so that it is no longer a question of profounder knowledge, but simply a matter of the better application of the principles already well known to the profession. Of all the members of the medical fraternity who should act with an eye to the future condition of his client, there are none upon whom this obligation should rest with greater weight than the obstetrician. The prompt application of surgical principles to the treatment of traumæ received during childbirth may avert many of the troublesome sequelæ to that act which often terminate in serious pathologic changes, and often demand radical measures for relief. It is not at all improbable that uterine cancer is frequently the result of a neglected cervical laceration. The immediate restitution of a lacerated perineum may avert the occurrence of a case of prolapsus which would require hysteropexy, or even a case of procidentia uteri with chronic endometritis and hypertrophy of the organ, which might demand hysterectomy to effect a cure. Thus it is throughout the entire catalogue of minor accidents and the corresponding surgical procedures for their relief.

There are some grave conditions which owe their inception to accidents occurring during the age of pubescence, or during the first years of menstrual life. It is here that the general practitioner might find an opportunity to enhance his usefulness at the expense of the neurologist. It is reasonable to believe that many cases of aberration of nerve function might be prevented by well-directed medical attention during the early years of menstrual life.

In sum: the prophylaxis of the diseases peculiar to woman may be embodied in a more perfect application of the principles of obstetrics in actual practice; a profounder understanding of the accidents occurring so frequently at the age of pubescence, and finally greater attention to the hygienic regulations which should govern daily life.

Radiographs of Encapsulated Trichinæ.—Radiographs of encapsulated trichinæ in the muscle of a cadaver have been secured at Würzburg, the birthplace of the Röntgen ray.

GONORRHEA AS A FACTOR IN PUERPERAL FEVER.

Presented in the Section on Obstetrics and Diseases of Women, at the Forty-ninth Annual Meeting of the American Medical Association held at Denver, Colo., June 7-10, 1898.

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The methods which have revolutionized modern surgery as the direct results of the teachings of Lister have been more or less efficiently carried out in the practice of modern obstetrics. The new science of bacteriology and the accumulating evidences of the pathogenic nature and far-reaching effects of certain micro-organisms have invested the subject of the prophylactic, aseptic and antiseptic protection of the parturient with increasing interest and importance. Notwithstanding the advancements along these lines, the query arises, why is there not greater freedom from septic complications and fatal issues in the service of those who carry out the most approved measures in the practice of midwifery? In other words, are there not frequently sources of danger within the mother herself, antedating childbirth, which ordinary methods fail to avert? I desire to emphasize the importance of these vital questions.

Since the discovery of the gonococcus which Neisser announced as the specific cause of gonorrhea, in 1879, two important discoveries have placed his claims beyond all cavil; first, the Gram method of staining, by which this germ is differentiated from all other diplococci, and, second, the improved culture methods of Bumm and Wertheim (1889-1891), by which its true specific character was established by the four immutable laws of Koch. It is now possible to scientifically demonstrate the multiple roll of this ubiquitous germ in its capacity for pathogenic mischief. A glance at the biology of the gonococcus will help us better to comprehend its possibilities for doing harm in the puerperium. Its habitat is the mucosa and glands of the genito-urinary organs of the human race. It is not known to exist anywhere in nature apart from the human body. It perishes quickly when removed from its host. It is cultivated with difficulty on nutrient media of human blood serum or urine. It dies very soon in water, loses its virulency when thoroughly dried, and is easily destroyed by ordinary antiseptics. Notwithstanding all this, the germ is most persistent in its normal surroundings. It is able to exist in various degrees of chronicity for indefinite periods of months or years, retaining its power to invade new territory and regain its old-time activity under favoring circumstances. It requires no solution of continuity or lesion of any nature to prepare the soil for infection. It is able to penetrate readily the epithelial, follicular and glandular structures of the mucous surfaces everywhere. Nor does it stop here. It also penetrates the submucosa and adjoining muscular walls. It makes its destructive pilgrimage through lymph channels into the circulation itself, and sets up dangerous lesions in distant organs, like the heart, brain and articulations. This power of extending its field of operation by penetrating almost every tissue of the body, together with its persistence in favorite localities while awaiting its opportunities, constitute its most dangerous properties as a pathogenic organism in childbirth.

Again, it is essentially an irritant pus germ. Its