PROPHYLAXIS OF GESTATION.*

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GESTATION is as old and inclusive as life itself. Ideas of prophylaxis are hardly less ancient. That which is, has been; what has been, will come again. The devil is wise, not because he is the devil, but because he is old. An ounce of prevention is worth a pound of cure. These are concentrated and crystallized expressions bred from ages of experience.

We listen with grim amusement to the report that, in China, the medical man must keep his patient in good health, or risk decapitation—certainly an urgent incentive to practice preventive medicine. In ancient Egypt the development and knowledge of the healing art reached a very high level. Herodotus reports his personal observations as follows: "Those Egyptians who live in cultivated parts of the country are, of all whom I have seen, the most ingenious. To give some idea of their mode of life: For three days successively in every month they use purges, vomits, and clysters; this they do out of consideration for their health, being persuaded that the diseases of the body are occasioned by the different elements received as food. The art of medicine in Egypt is thus exercised. One physician is confined to one disease; there are a great number, of course, who practice this art; some attend disorders of the eyes; others those of the head; some take care of the teeth, others are conversant with diseases of the bowels; while many attend to the cure of maladies which are less conspicuous." One victorious ruler returned to Egypt

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and declining to follow the example of his predecessors and build tombs, pyramids, and other lasting structures by which to record the victories and glories of his reign, he converted temples into medical schools and devoted a generous share of his attention and the resources of his realm to the study and advancement of medical science. This branch of learning was held by members of the priesthood. The customs and practices of that time were promulgated with the authority of religious rituals. It is probable that a workable reason for the practices was well understood. Much of the achievement and the reasons why results would follow given practices at that time have been forgotten and lost in the decline and dark ages which followed.

Some of the practices have been handed down from age to age. It is credible that, because of this fact, it was possible for a Scotch surgeon in Uganda, in recent years, to witness and report the performance of a Cesarean section by native operators. It is significant that this operation was done in an orderly manner, and not as an act of native frenzy. The method of preparation is of far greater significance. The report states that the site of operation, the operator's hands, and the instruments were bathed in wine; thus making use of the cleansing detergent and antiseptic value of dilute alcohol; although it is probable that these operators were as innocent of the reasons why they followed this technic, as were our American Indians half a century ago who exposed their store of buffalo meat to the desiccating and bactericidal action of the sun and air, knowing that in this way they could preserve a food supply much reduced in bulk and weight which would keep indefinitely. We are apt to look upon the speculum as of modern invention. Egyptian ruins have yielded up specula which were used at a time too remote for history to reveal the date.

Within the last thirty-five years, Dr. Henry J. Garrigues has written in all seriousness that an outbreak of puerperal sepsis, in a given maternity hospital, was due to the presence of fertilizer upon the lawn. Because of the very high mortality in maternity hospitals his belief was pretty generally shared by medical men and the lay public of that time, that hospitals were not desirable places in which to confine women. We now know that women can be safely confined in an occupied stable, if there is no break in the antiseptic technic and the patient is reasonably prepared.

We owe to wise experimenters, to keen and tireless workers in laboratories, to quarantine, to better hygiene, and to the heroic martyred dead from the ranks of the medical profession, the fact that

small-pox, malaria, tuberculosis, diphtheria, yellow fever, typhoid, and typhus, diseases which have cost countless lives, distress, and material loss, are becoming more and more hedged about and, in some instances, almost wiped out, or reduced to sporadic occurrence. Under the initiative and direction of the laboratories of the department of health, large numbers of very young infants in the nurseries of New York are being inoculated with so-called toxic antitoxin the idea being to develop and increase the native immunity to diphtheria, so that there shall be a largely increased number of our population who are no longer susceptible to this disease.

We have recently taken a belated and relatively small part in a great war which, by force of circumstances at a critical time, became a dominating and deciding feature. The effort we have put forth, and the strain under which we have lived, have been enormous. The number of our dead and injured has been very great. Silently, with little warning, epidemic influenza with its accompanying pneumonia spread over a large part of the world. In a few months the mortality from this disease, in this country, outnumbered our casualties from war by more than two to one. In the case of pregnant and parturient women attacked by influenza, the mortality was in the neighborhood of 50 per cent. It is idle to prophesy as to whether or not a similar epidemic of this disease is again to visit us. Its cause is not well understood; therefore, it is not under control, and thus we are no better prepared to cope with its ravages than we were a year ago.

From time immemorial the distress, danger and the frightful loss of life incident to the process of the reproduction of our race, have been proverbial. The annual total loss of life from this cause is staggering. The horrible thought about this is the knowledge that much of this loss of life is unnecessary and preventable.

The accoucheur, developed to his best, should be a well-trained surgeon, because obstetrics is, essentially, a surgical branch of medical science, which has for its field the care of women throughout the whole childbearing process; namely, the treatment of sterility; the supervision and management of pregnancy, labor, and the after-care of mother and child, as well as such treatment and operations as may be found necessary to restore to good health and correct function, which will again enable the patient to take up her accustomed mode of life. It is at once apparent that this is a field of great importance and of very wide scope.

Speaking in a broad sense, the prophylaxis in obstetrics should begin several generations before birth. This places significant obliga-

tions upon both parents. A child has the inherent right to be born under favorable conditions; it should be well-nourished, clothed, and sheltered; and, later, suitably educated for the demands of its day and generation.

The progress made in infant feeding and child-welfare must have a direct result, in an obstetrical sense, in that fewer ill-developed and sickly children are growing up. One of the results of the late war will become apparent to obstetricians in a few years hence, when the children of the war zones, who have survived injuries, exposure, starvation, and disease, arrive at the age of reproduction with distorted, ill-developed bodies. The obstetrician should advise as to the care of young girls when menstruation is being established. He should treat and take good care of cases of sterility. The sterile woman, by the time she becomes aware of her sterility, is usually very eager to bear a child. Often her mental condition is pitiable. She is entitled to a careful search for the causes of her condition and the employment of every possible means to make her a normal woman. This investigation should begin and end with an examination of the husband if he is found to be sterile? If the husband's condition is found to be satisfactory, the physician should inquire into the wife's general health, environment and occupation. A complete and thorough physical examination should be made. Laboratory facilities should be employed wherever they are indicated. If her mode of life is found to be faulty, this should be corrected in so far as it may be possible. Treatment looking toward the cure of any disease found to be present should be instituted. If physical defects are found, such as faulty developments, deformities, stenoses, displacements, and obstructing neoplasms, surgical operation should be resorted to, if by careful selection and skillful technic there is even a reasonable hope of accomplishing the desired results.

The obstetric surgeon must not only meet and manage the conditions incident to normal reproduction, but he must also be prepared to cope with abnormalities and accidents which sometimes complicate gestation, labor, and confinement.

The woman passing through the process of reproduction is no more exempt from disease than the non-pregnant. Not infrequently the obstetrical condition becomes the one of less importance. Critical and dangerous are cardiac decompensation, cardio-nephritis, pulmonary tuberculosis, pneumonia, all acute infectious diseases, chorea, diabetes, cancer in its varied locations, acute appendicitis, tumors and cysts giving rise to acute symptoms with or without

twisted pedicles, acute cholecystitis, pyelitis, septicemia, hemorrhage, and shock.

The obstetrician must know how to manage the various forms of abortion, threatened, inevitable, and incomplete; ectopic pregnancies, as well as accidental and concealed hemorrhage. During simple labor, conditions may gradually or suddenly arise which place the lives of both mother and child in jeopardy and operative delivery, either pelvic or abdominal, may be unexpectedly demanded of the attending obstetrician. The uterus may rupture; lacerations, of greater or less extent, may occur in the parturient tract; postpartum hemorrhage, with its accompanying acute anemia and shock, may result. During the puerperium the accoucheur must also be on his guard for and avert, if possible, complications; he must continue to treat, and, where necessary, operate upon his patient, until she has fully recovered. The obstetrician should be the one to perform these operations, because delay would, in many instances, prove fatal to the patient; and, aside from the purely surgical aspect of the case, there still is to be met the strictly obstetrical condition. The two are inseparable. To meet properly all of the demands in the practice of this branch of medicine, the obstetric surgeon must be calm and clear in his judgment and in his actions; he must possess the ability to decide instantly what is to be done, and have a technical operative skill of a very high order.

Prophylaxis of pregnancy (prenatal care) means a supervision of the pregnant woman throughout the whole period of gestation. It means giving instructions as to her mode of life, clothing, occupation, exercise, sleep, diet, hygienic care of her body, and especially the avoidance of constipation. She should be the subject of regular monthly observations during the first six, and bimonthly during the remaining three, months of pregnancy; and as much oftener as the nature of her case may require. At such times her urine should be examined and her blood-pressure taken. Early in pregnancy there should be a thorough physical examination, including careful external and internal pelvimetry. She should be instructed to report promptly anything which may appear to her abnormal, and to bring with her the list of questions which she would like to have answered. The aim should be to prevent, anticipate, and quickly meet complications, if they oocur.

Disturbances of vision should call for prompt ophthalmoscopic examination. Only by this method are we able to distinguish between toxemia of the later months of gestation and the exacerbation of chronic nephritis during pregnancy. In the former, struc-

tural changes in the eyes are rarely detected, and the symptoms are transitory if the toxemia is removed. In the latter, structural changes in the eyes are the rule; and, when marked, may demand prompt evacuation of the uterus in order to prevent the loss of sight.

TOXEMIAS OF PREGNANCY.

The toxemias of early pregnancy, as expressed by the term pernicious vomiting, are not as yet susceptible to satisfactory treatment. A considerable number of these patients recover under general care, such as rest in bed, no food or drink by mouth, rectal feeding, hot baths, colonic irrigations, and the tentative and, as the patient improves, the gradual resumption of mouth feeding of solid carbohydrate food. Transfusion has been followed by prompt and brilliant results in some cases, and has signally failed in others. The results from the use of corpus luteum extract have not been satisfactory in our experience. The improvement, if any, due to interruption of pregnancy appears gradually.

The toxemias of late pregnancy, tending toward or arriving at the eclamptic stage, now admit of early detection and treatment with happy results. We do not encounter so many cases of eclampsia as formerly. Many of those which we do see now are not extremely ill. The mortality is lower. Closer observation during pregnancy (prenatal care), is sending more of these cases in the early stages to hospitals where they are treated with almost uniformly satisfactory results. A steadily rising bloood-pressure warns of toxemia at a considerably earlier stage than the findings in the urinalysis. The treatment is similar to that used in eclampsia. Rest in bed and quiet surroundings are important in conjunction with eliminative treatment, and a diet restricted to milk and cereals, and medication to secure sleep.

RELATIONS BETWEEN PATIENT AND ACCOUCHEUR.

The relations between the accoucheur and patient, in so far as the reproductive process is concerned, should be that of mutual understanding and confidence in order to secure the necessary coöperation. This places obligations upon both persons; upon the former, that he shall be competent, honest, and alert in his interest and well sustained watchfulness, as well as careful and thorough in his investigations of the case; upon the latter, that she shall faithfully follow instructions, report promptly deviations from the normal, give herself over to the entire care of the physician, and place the respon-

sibility for the safe management of her case in him alone. This coöperation should develop in the patient the confidence that all will go well if conditions are normal and, in the presence of abnormalities and complications, the best means will be employed to overcome them successfully. If this relation can be established and maintained, the patient will be immune to the baneful influences of bearers of horrible tales, which grow in seriousness as they are told, by the donors of gratuitous and irresponsible advice concerning child-bearing. Such talk tends to engender apprehension and unwarranted fear, which is demoralizing to the pregnant woman.

Bad as the record still is, it can be truthfully stated that something over 90 per cent. of pregnant women pass through childbirth with only minor or no complications, and without undue distress and suffering.

Through better obstetrical teaching, more watchfulness during pregnancy, better and simpler asepsis, and better operative interference where operations are necessary, fewer men attempt major surgical interventions in obstetric practice without adequate assistance and surgical training; these and the "let-alone" policy during the puerperium, unless there are decided indications for interference and treatment, have resulted in a marked lowering of mortality and morbidity in the well conducted maternities throughout the country and more especially in the private practices of the more recently trained obstetricians. This improvement has been very noticeable during the past ten years. While there is demand for still greater effort to teach, and to practice, better obstetrics, the betterment obtained furnishes more hope and gratitude.

THERAPEUTIC ABORTION.

There is an increasing number of women, the victims of acutely active, or arrested, pulmonary tuberculosis, who have become pregnant, and who are referred to us with the request that the uterus be emptied and that the patient be sterilized. This practice is susceptible of very great abuse. Some women do not appear mournful over the prospect of being relieved of an existing pregnancy, or over the inability of ever again becoming pregnant. The responsibility for bringing about such a profound change in a woman's life is very grave. On the other hand, we know that nonpregnant women have quite enough to contend with, if they hope to have this disease cured or arrested. Undoubtedly, pregnancy stimulates its progress and makes added demands upon an already overtaxed

organism. If abortion is performed, it may need to be repeated at intervals of a few months. We know the results of such treatment in an otherwise healthy woman.

If abortion and sterilization are to be performed, the most satisfactory way to empty the uterus is by abdominal hysterotomy, resecting a portion of the tubes from the uterus, ligating the distal end and suturing the peritoneum over the cut ends. But we need more light and coöperation upon this subject from the tuberculosis specialists. They should be invited to our meetings, and by formal papers and the interchange of experience and discussions upon this subject, we should arrive at a better understanding of what is the right course to be pursued in these cases. The decision to bring about this great change in a woman's life should not rest upon the fiat of a hurried physician who may be working in a dispensary for tuberculosis patients, and who is acquainted with but one side of the question.

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