PREGNANCY AND TUBERCULOSIS*

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PART 2.—THE TREATMENT OF TUBERCULOSIS COMPLICATED BY PREGNANCY.

WHEN pregnancy has, through ignorance of the law, or of conditions, or in defiance of them, or on wrong advice, or against advice, actually begun in a woman who is tuberculous, what is to be done about it? Should pregnancy be terminated, and when, and how: or should it not be terminated: and if not, then what can be done? Into these decisions many considerations enter.

Three schools are described by Schauta. One teaches that abortion should be done on every pregnant woman who has tuberculosis; the second that abortion should never be done, but the best of treatment given, and the woman allowed to go through with her pregnancy; the third, that there can be no fixed rule and no general indication, but every case must be considered and decided by itself.

The avoidance of pregnancy is one thing and the interruption of pregnancy quite another. Ordinary human feeling and the religious teaching of many hold the emptying of the uterus and the destruction of the fœtus excusable only when life is to be saved thereby. The law of the land rightly holds the emptying of the uterus for any other reason to be criminal malpractice.

The problem is essentially one of prognosis—judgment as to the probable outcome of the tuberculosis, handicapped by pregnancy and what follows, or, on the other hand, relieved so far as an abortion can relieve it. It is not an obstetrical problem. A wise prognosis in tuberculosis is much more difficult than diagnosis or treatment, and comes only through long experience. The elements which enter into such an estimate can only be briefly indicated. Time is an element in resistance. Long duration is more favourable, other things being equal, than short duration, and quiescence and evidence of arrest are more valuable the longer they have lasted. Small extent of disease, again other things being equal, is much better than greater extent, but not infrequently extensive old chronic disease may give a much better outlook and bear burdens better than a smaller, newer and more active lesion. Activity, even slight, and shown by even the slightest symptoms, always means danger. Complications of any sort are bad, especially when added to pregnancy, which is in itself a bad complication. Pregnancy with laryngitis, or intestinal tuberculosis, even the slightest, gives an outlook almost absolutely bad. In a woman under twenty, pregnancy as a complication to tuberculosis is more serious than in a woman beyond twenty. Out of these and many other elements must be built up an estimate of the possibilities and probabilities of the patient's power of resistance to the disease with a continuance of the pregnancy, or after abortion.

Into the decision must enter practical as well as theoretical considerations. The conditions under which the pregnancy will be passed, the child born and the mother and child live, must be considered. Under the very best conditions it is possible for a child born of a mother actively tuberculous to get a fair start; under average conditions it is most unlikely, and under the worst conditions impossible. How can a mother in a poor home, herself with active disease and in need of care, with other children dragging at her skirts, give anything like a fair start to the latest born whose coming was, from all points of view, a mistake? A consideration of that mistake, how great it is, should enter into the decision for or against release from pregnancy. It is better to sacrifice an unborn fœtus than a mother and a little child.

What chance is there of improvement in the tuberculous condition if pregnancy be terminated? Unfortunately, while an operation can undo the pregnancy, it cannot by any means undo all its

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evil effects. It cannot make all conditions as though pregnancy had not been. Too often the flare-up of disease due to pregnancy goes on unchecked though the pregnancy be ended. While the second school described by Schauta, teaching that no tuberculous woman should have an abortion, has not prevailed, the present tendency is distinctly toward conservatism, and is so because abortion even if done in the first three months is not infrequently disappointing in its results That it does save life in some cases, however, is undoubted.

To wait and bring about premature labour offers no advantage and many disadvantages. The only wise interference is within the first three months if possible, and on no account later than mid-term. Some recommend not abortion but hysterectomy.

If pregnancy should be allowed to continue in a woman with any tuberculous activity whatsoever, there is one course only to follow. She must "take the cure" of rest and care absolutely, once for her tuberculosis and twice for her pregnancy. Even slight symptoms indicate rest in bed all through pregnancy and for months after the child is born. Almost as strict a routine should be followed by a woman whose uterus has been emptied. For a woman with old tuberculosis now latent much the same routine should be recommended, should pregnancy occur.

In many cases of pregnancy with tuberculosis the decision for or against interference has to be made, and such decisions are always difficult. Men whose opinions should carry weight differ in their teaching, as one leans toward interference and another toward conservatism. But upon this all agree, and this dictum practically all repeat: that no rule can be made, but each case must be considered by itself; and upon this also all agree, that the problem is not obstetrical but medical, a matter first of the most careful estimation of all elements in the prognosis of tuberculosis, and then of constant supervision and control by one wise in the ways of tuberculosis.

Funk of Philadelphia considers that "If the tuberculous lesion is early and active, the pregnancy should be terminated if it has not gone beyond four and a half months." If interference at once is not imperative he would put the patient to bed for a time for close observation. Activity of the tuberculous lesion in spite of this rest should decide for interference. "If the tuberculous lesion is early and inactive, in a patient who gives a previous history of sanatorium care and in whom signs and symptoms are those of an arrested or cured case, the pregnancy should be left alone." If activity appears, he would terminate the pregnancy, but adds: "If the tuberculosis is so acute that the termination of pregnancy would seem immediately necessary the chances are that such a termination will not help an already overwhelming lesion."

Elliott, who is inclined to be conservative, considers that "There are no rules we can follow which will aid us to determine with certainty which cases will bear the added strain of pregnancy well and which badly. It is equally difficult to determine in what cases an abortion will improve the future prospect of the pregnant woman. As in all forms of treatment of tuberculosis, we must individualize; all rules fail. Intervention after the fifth month rarely gives satisfactory results. Prior to the fourth month, it is possible that the mother's future may be improved by emptying the uterus through the modern operation of vaginal hysterectomy."

Van Voornveld, writing in the *Swiss Journal of Surgery*, expresses the common opinion that no general rule can be given, but that the activity of the focus should decide. Holding firmly to the belief that the most damaging feature of the cycle is the sudden re-expansion at delivery, of the diseased lung which has been compressed by pregnancy, he considers artificial pneumothorax a procedure of especial value. In certain cases he would decide upon abortion if lung collapse were not possible, but if the lung could be collapsed by artificial pneumothorax, he would allow pregnancy to continue to term.

Bandolier and Roepke consider that "With manifest active tuberculosis artificial abortion is indicated. The bad effects on the disease will not be thereby always prevented, but the trial must be made." They add that "Artificial induction of premature labour has no advantage whatever over normal confinement. Results of interference are relatively good if the operation is performed early—that is, early in the pregnancy. After five months, induction of labour must as a rule be avoided."

The summing up of C. H. Davis of Milwaukee is a little more unfavourable to interference. There is, he considers, no certain means of determining which patients will be benefitted and which harmed by abortion. He quotes Bacon as considering abortion justifiable in not more than ten per cent. of tuberculous pregnant women; Veit, as reporting no improvement

following abortion in 43 per cent. of the cases collected by him; Trembly, as having had in his large experience so varied results that a general summary was not possible; and Von Bardleben as stating that 50 per cent. of his patients died after abortion.

John Ritter of Chicago puts doubtful cases to bed. If symptoms of tuberculosis subside, the pregnancy is not interrupted. If the symptoms do not subside, interference somewhat improves what is in any case a bad prognosis.

Fishberg's summing up is to the effect that—"Pregnancy is a grave complication of phthisis and in incipient cases it is advisable to induce abortion whenever it occurs."

Douglas and Harris consider that with active tuberculosis therapeutic abortion is indicated when the lesion is early or moderately advanced, or extensive and quiescent, or when complications are present.

Much the same conclusion is reached by Norris and Landis, who think that, "Prior to the fifth month the uterus should be emptied if the disease manifests evidence of becoming active, or if the lesions are extensive or laryngeal involvement occurs." Interruption of the pregnancy, they consider, "does not ensure an amelioration of the pulmonary condition, but does definitely improve the prognosis." They estimate that about 65 to 70 per cent. of patients prior to the fifth month will be definitely improved by the emptying of the uterus as soon as acute symptoms arise, provided proper after-treatment is carried out.

McSweeny's experience has been so varied that he can offer no sure rule. In his series, "Some who were thought to have a poor initial prognosis seemed to progress favourably; others retrograded when it was unexpected. . . . . To answer the question as to the termination of pregnancy in the individual case is extremely difficult, and perhaps the best way is to imagine one's self in the position of the tuberculous woman and then decide."

My own practice has been very conservative, and I do not think I have more than twelve times is as many years advised that pregnancy be interrupted. What little experience I have had, and a study of such statements as have just been quoted, leave me with the opinion that though conservatism is the proper tendency, my own practice has erred in being too conservative; and that interference would have been the better choice in some cases in which I advised against it.

The whole subject of the relation of maternity to tuberculosis is of importance away beyond any general interest or special study so far given it. Bacon estimates that between 24,000 and 36,000 women, with a more or less active tuberculosis, come to child-bed each year in the United States; that more than one per cent. of all pregnant women have tuberculosis active enough and advanced enough for definite diagnosis; and that of all women who die of tuberculosis between twenty and forty, one quarter break down during the child-bearing cycle. Bacon's estimate, if applicable to Canada, would show three thousand pregnancies occurring each year in Canada in women with active tuberculosis.

It is scarcely necessary to point morals which are self-evident.

1.—The occurrence of pregnancy with active tuberculosis even once in one hundred maternity cases establishes this complication as one general practitioners and obstetricians should have definitely in mind. It is perhaps a counsel of perfection to urge a complete chest examination early in every pregnancy (and before every surgical operation also), but even the slightest sign or symptom or suspicion should be considered to merit not a cursory look-over, and a bland assurance of safety, but a thorough examination and investigation. And when during pregnancy or the puerperium symptoms of real illness occur a flare-up of tuberculosis should be one of the first possibilities to occur to the thoughtful physician.

2.—When tuberculosis has been found in a pregnant woman, or pregnancy occurs in one known to be tuberculous, no time should be lost in having the best estimate possible as to the extent and severity of the tuberculosis; in deciding what is best to be done and in getting it under way. The Sanatorium routine is the minimum in such cases.

"Watchful waiting" in such a case is a dangerous motto. The first half of pregnancy will likely go well; it is after mid-term as a rule that trouble begins. But interference is inadvisable after mid-term. So interference must usually be considered and decided for or against, while yet very little trouble has occurred. Forecast, not observation, must rule. The problem is one essentially of prognosis; prognosis of the tuberculous disease, not of the pregnancy.

3.—Bacon has advocated, and McSweeny, on Staten Island, and Dr. Dobbie, at Weston, have organized special hospital sections for the care of tuberculous women, during and after delivery,

and of their infants. In every centre of population such provision should be made.

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Clinical Laboratory Service for Physicians. Laboratory methods now play a large part in the daily work of physicians. Chemical, morphologic, bacteriologic and serologic methods, as well as the roentgen ray, are in daily use everywhere, and new methods—for example, the electrocardiographic determinations and tests of metabolism—are being introduced. To meet the constantly growing needs for such methods, there have come into existence laboratories of health departments and of hospitals, with more or less differentiation into separate departments; also wholly private laboratories. The latter group includes those frequently referred to as commercial, because dependent on fees, and the individual establishments of physicians working alone or associated in groups. The old time pathologist, the prototype of the modern laboratory physician, whose function in clinical diagnosis was to determine the nature of lesions from gross and microscopic examination of tissues, has undergone differentiation into clinical chemist, clinical bacteriologist, clinical serologist, clinical microscopist, and roentgenologist, and there has come forth a formerly unknown adjunct to medical practice, the laboratory technician. So rapid has been the evolution of the clinical laboratory and the extension of laboratory methods in all fields of medicine, that frequently fear is voiced lest much work that should be done by physicians is being entrusted to incompetent substitutes.

Analyzing the situation, we must reckon first with the fact that the great majority of private practitioners, for various reasons, lack of time being an important one, are prevented from making any but the simplest routine tests themselves. Therefore they must turn to someone for help, and the privately owned laboratories offer their services. The laboratory features of the proposed health centres or of institutions financed and controlled by the community are attractive to many physicians and are idealistic. They represent a condition in which the same type of service would be rendered to all of the physicians in the community, the cost being reasonable and equally distributed. Physicians are responsible to their patients, i.e., the public, for the character of laboratory service supplied. The results of tests and examinations must be accurate; the fees for such tests must be equable. The conditions in some of these laboratories are such that thoroughly competent and well-trained physicians have been attracted by the work. It is desirable that similar conditions develop in all laboratories so that well-trained physicians, and not incompetent technicians, become responsible for laboratory service. —(Journal A.M.A., November 5, 1921).