INTERCURRENT INFECTIOUS DISEASES OF PREGNANCY.[1]

BY

HENRY B. DEALE, M.D.,

Washington, D. C.

AN infectious disease occurring during the course of pregnancy is not so unusual an event as one is often led to suppose; indeed, certain observers hold that this condition predisposes to render one more susceptible to the infectious agents, though this is not upheld by experience.

The pregnant woman is liable to contract the same diseases

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as the non-pregnant; or, indeed, a woman in whom some disease already exists may become pregnant. Certain diseases have little or no effect upon the pregnant state, others render this condition much more serious; the question to determine is what to anticipate, when and how to proceed in these complications.

I. Rubeola or measles is occasionally contracted by the pregnant woman, and, while it may exert no effect upon the course of gestation, it frequently produces unfortunate results. It is rarely a serious complication so far as the mother is concerned, but if occurring early in pregnancy abortion may result; if late, premature delivery. If the bronchitis of measles is severe the frequent and violent cough may bring on abortion by abdominal contractions, or if high fever occur for any length of time the same result may be expected. It has been noted that when measles occurs in the mother late in pregnancy, an analogous condition is found to exist in the child at birth, it either being born with a morbillous eruption or such occurring in a few days. The records of measles occurring during pregnancy are few and brief. Lomer reports a case occurring in a primipara five weeks before term; the day following the initial symptoms labor set in and a premature child was delivered; the following day both mother and child exhibited the characteristic eruption (the child died of intestinal catarrh). Collins reports the case of a woman, four months advanced in pregnancy, who was attacked with measles, death resulting nine days later (cause not stated). Tourcoing states that out of 15 cases, all severe, the mother aborted in 7. Gautier found measles transmitted from mother to fetus in 6 out of 11 cases, the maternal mortality being 2 out of the 11 cases. Bourgeois noted 8 abortions or premature births in 15 cases; among these 8, 5 were non-viable.

The indications in such cases are to control the cough by anodynes if the accompanying bronchitis is severe, and to lower the temperature if the fever shows a tendency to remain high.

II. Scarlatina is a much more serious complication, though it is of rarer occurrence, than measles. Many authorities hold the opinion that there exists some condition of the pregnant state which delays its development often for weeks or months; but the disease manifests itself early in the puerperium, even though the exposure to contagion had been at a much earlier date, thus indicating a prolonged period of incubation. There

are few recorded cases of scarlet fever during pregnancy, though many puerperal cases are reported. Olshausen (up to 1876) was able to collect only 7 cases during pregnancy, while he collected 144 occurring during the puerperium. The prognosis is most grave to both mother and child, on account of the excessive temperature as well as the septic nature of the infecting germ. Denham saw only 1 recovery in 8 cases, Hicks 4 in 18 cases, while McClintock had 10 fatal cases in 34; whether these included both puerperal and pregnant cases is not known, though I think such is the case. The fever must, if possible, be controlled, even though heroic measures are instituted, such as cold sponging, wet pack, and cold bath. Diarrhea is a dangerous and frequent incident of the disease, and for this reason all cathartics should be withheld where there is the slightest suspicion of the existence of scarlatina. Boxall gives the following conclusions: 1. Scarlatina occurs almost invariably during the first week of the puerperium. 2. In exceptional cases it may appear during pregnancy shortly before parturition begins. 3. Predisposition to infection is greater immediately after parturition. 4. If infection occurs during or just after parturition the period of incubation will be very short. 5. During pregnancy the pharyngeal symptoms are not modified, but angina after parturition is infrequent. Should parturition occur during an attack of scarlet fever the pains will be weaker than normal, inertia will be present, and there may be a tendency to hemorrhage. The mammary secretion is almost always diminished or stopped by the disease.

III. While certain authors hold that the pregnant state furnishes immunity to typhoid fever, this can hardly be accepted as universal, though undoubtedly a pregnant woman is less liable to the disease; but true cases of typhoid during pregnancy have been seen and reported. The attack is more apt to occur during the earlier months of gestation, and the prognosis is correspondingly more grave the earlier the attack. In a series of 322 cases the fetus was expelled prematurely in 182, of which 169 were abortions and only 13 were premature births. In another series of 22 cases 16 aborted. The interesting question to determine is the direct exciting causes of abortion in these cases. It may be the result of the continued high fever, or hemorrhage in the endometrium or in the membranes of the ovum itself, or to a depressed condition of the maternal circulation causing asphyxiation of the child. A most interest-

ing demonstration was made by Giglio. He examined the fetus and its appendages born forty-six days after the onset of typhoid in the mother. Both were found to contain typhoid bacilli; the milk also revealed bacteria exactly resembling those obtained from a non-pregnant typhoid patient. Jaggard reports 2 cases of typhoid complicating pregnancy, 1 of which occurred in the ninth month. The skin of the child at birth was shrivelled, and in a few days was covered with bullous spots, at first vesicular, later becoming pustular.

IV. Malarial infection during pregnancy is not infrequent, though it seems more often to be an acute exacerbation of a chronic condition than a primary infection.

Unquestionably many cases recorded as malarial, especially those in which the intermittent character of the disease is absent, have been wrongly diagnosed. With our present knowledge of the plasmodia, one naturally thinks this error can easily be eliminated, and to a certain extent this is so. I am convinced, however, that it requires a most skilful observer to differentiate between the various forms of the malarial organisms and certain non-pathological changes that occur in blood outside the body; but by staining, which is a simple process, this element of uncertainty may be removed and the specimen preserved and shown at any subsequent time to prove the correctness of the diagnosis. Medical science has now advanced to that point where any very obscure or unusual case of malarial infection must be verified by the stained specimen. Quinine should be withheld until after the blood examination, as it is supposed to destroy the young organisms and to drive the older ones into the internal organs and thereby often render a true infection obscure. Malaria complicating pregnancy was recognized by the ancients. Schurigius reports the case of a woman, pregnant for the third time, who in the second month was seized with a very obstinate quartan fever. In the last month, before and after the paroxysm, she felt the fetus move, quiver, and clearly turn from one side to the other. Finally, after a violent paroxysm, she was delivered of a child, which was seized, at the same hour as the mother, with very violent attacks of the fever. This condition lasted seven weeks. Similar manifestations have been recorded by Hoffman, Russell, Bourgeois, Hubbard, and others. That the disease may be transmitted to the fetus is clearly shown by the characteristic pathological changes in the spleen and certain changes in the

blood (malarial pigment granules), though I have not been able to find any report where examination for the plasmodia in the blood of the child has been made. Undoubtedly they would be found to exist. Quadrat, during a severe epidemic at Prague, found only 2 cases of malaria among 8,639 pregnant and puerperal women—a most incredible experience. Many and various views are expressed as to the effect of malaria upon the completion of gestation. While many hold that abortion or premature delivery is liable to occur and many cases are cited to uphold this view, I cannot but think it is the exception rather than the rule. In treatment quinine is the sheet-anchor in the pregnant as in the non-pregnant. The opinion that this drug is liable to produce abortion is no longer held, and experience verifies this belief. While quinine is found to be an excellent oxytoxic during parturition, it does not exert such a power before labor begins.

V. Pneumonia, or pulmonic fever, is unquestionably the most serious of the infectious diseases complicating pregnancy. Many reasons are assigned to account for the gravity of its occurrence. The old idea that the pregnant womb by pressure gives less respiratory space is not now tenable. It may be attributed to three factors, acting either alone or together—viz., high temperature, weakness of the heart and circulation, and the condition of the blood. Whether abortion should be artificially produced in these cases is pretty well decided in the negative, though there are rare instances where such a procedure is justifiable; but no laws can be laid down to absolutely govern us, the conditions existing being the only guide to the judgment of the physician. Wallich, who has made a study of this condition, found abortion occurred in one-third of all cases before the sixth month, and premature birth in two-thirds of all later cases. The maternal mortality ranged between 50 per cent and 100 per cent of recorded cases, while the fetal mortality was 80 per cent The treatment is similar to that in the non-pregnant, though the circulation is even more susceptible to failure and should be most carefully watched.

I realize that these subjects have been presented only in outline and have not received the comprehensive consideration they deserve. For a long time I have been impressed with the fact that these complications are either more rare than formerly, or their existence is looked upon as trivial, as it is

now an unusual occurrence to find such cases reported. I hope this paper may at least lead our own members to speak of their experiences in these conditions—conditions that present a twofold interest, that affect the welfare of two individuals.

1224 Fourteenth Street.