Editorials.

PROLONGED GESTATION AND THE INDUCTION OF LABOR

The average length of pregnancy is about 275 days. Of the many influences shortening or lengthening this period, a period founded in what Tyler-Smith called "the great law of periodicity," (every action in the universe is rythmical), we recognize some that are inoffensive and others that are harmful to the interests of the mother or child, or both. Of the first variety may be mentioned: slow development of the fetus—an average length of gestation would produce a premature child and a precocious development,—the average period would be somewhat short. Of the second class, in which the interests of one or both of the lives involved are not enhanced are: prolonged gestation in cases of contracted pelves—the duration being probably extended, as claimed by Pinard, because of pelvic contraction, whereby delivery becomes more difficult; shortened gestation due to excessive activity—hard work—during the last months of pregnancy, resulting in the birth of a prematurely developed, or badly nourished child.

Naturally, the questions raised by the above are: Can we safely and surely determine the period of gestation in given cases, and can we rise superior to Nature and prolong some and shorten other pregnancies for the good of the child?

We certainly cannot either safely or surely determine the date of impregnation. There are too many variations of condition, or fact. The responsible coition is lost in multiplicity; the range of time from the last menstruation to the next that never came is about twenty-one days; the acceptance of courtly advances from the spermatozoid on the part of the maidenly ovum may be delayed by tubal barriers, ovulation, or possibly ovular coquetry—more scientifically characterized as "latency in seminal and ovular conjunction"; the sequence of menstru-

ation may have been interrupted just before and independently of fruitful coition; the rate of fetal growth is subject to wide variation, and also the amount of amniotic fluid; quickening varies almost thirty days, is often imagined. Women have thought themselves at full term who were not pregnant; large babies have been born before the usual time, and small ones long after the average.

But is it necessary to know the period of gestation to justify an attempt to control it? The answer to this would lie in the diagnosis of threatened harm. We are forced to believe that the fetus has died in utero simply because gestation lasted beyond the full period of fetal prematurity and placental vitality. The placenta is a temporary organ like the umbilical vesicle and can probably functionate for a limited time only. Else why does the fetus die in abdominal pregnancies after "spurious labor?"

Clinically, we would seek to learn the degree of maturity, or vitality of the fetus if we thought the gestation too long continued, or the proportion in size of the fetal head to the pelvic canal regardless of any question of length of gestation.

We would also seek for any indication of "missed labor," or, more generally speaking, of prolonged labor.

It would be of help if we had some clinical signs of the causes of precipitation of labor. But not one so called cause can be named, excepting that involved in "rythmic periodicity," which does not show frequent exceptions. These exceptions do not controvert the rule. Stretching of the uterine fibers is undoubtedly a cause of labor, even though hydramnion and multiple pregnancy cases are not shorter in period, but they confuse the diagnosis to such an extent as to render it useless.

"Missed labor" is a term with loose and varied meaning. It originally meant, as applied by Oldham, incomplete labor with escape of the amniotic fluid, and death of the fetus only after fluid, the uterus then ceasing all activity.

Müller ("De la grossesse uterine prolongée indéfiniment," Paris, 1878), attempted to prove all "missed labors" cases of extra, or intra-mural pregnancies, but his attempt has failed to more than restrict the number. Kuchenmeister, ("Ueber Lithopædien," *Arch. f. Gynaek.*, vol. xvii, p. 153), attributes some cases of missed labor to occlusion of the cervical canal, or carcinoma, fibroids, etc., and Lusk to complete obliteration of the cervical canal. As in all these conditions the fetus is supposed to die shortly, it would seem that "missed labor" would not be a phenomenon to be sought in our efforts to save fetal life, but only prolonged gestation.

Excepting for the time being cases of fetal head and pelvic canal disproportion, we would be called upon to make two different diagnoses, first, that gestation is being prolonged, and second, that the fetus is sufficiently mature for delivery before we would be justified in inducing labor. The diagnosis of prolonged gestation can, at times, be made with accuracy, but then must come the proof that the fetus is quite mature. We recall the case of a lady married fifteen years without impregnation, when, at the age of forty, she gave birth to a child weighing six pounds and five ounces, 305 days after the end of her last menstruation, life having been felt thirty-two days later. Taking all the facts having a casual relation to prolongation of gestation into consideration, we are inclined to the belief that very few cases occur that are harmful to the child, other than as affecting the ease of its passage from the womb to the outer world.

But this latter point is the one important phase to which we wish to draw attention. It is neglected to a degree that is criminal judged by the results, and grossly careless considering its importance. The haphazard, happy-go-lucky system of obstetrical practice that permits the mother to reach the beginning of the second stage of labor before thorough knowledge of her case is sought, and not even then, unless danger declares itself, is far more prevalent than many men imagine. Every

woman should be looked upon as a possible case of pelvic and fetal head disproportion. The ideal standard of obstetrical expertness should be the ability to forecast the question of head passage through the pelvis. We cannot become infallible, but by the degree we attain in approach to this ideal should we be judged as experts. In cases of marked pelvic contraction, the question of the induction of labor arises at a time when the fetus is quite immature, and such intervention involves the risk of early death of the child. But the great majority of disproportionate cases are of moderate degree, labor being accomplished by moulding, or forceps, or version.

Assuming an accurate judgment, the induction of labor in these cases to avoid such means of delivery would not need to lessen fetal intra-uterine life more than a fortnight. And would not such accelerated delivery be preferable for the child to more or less severe head compression. Considering the mother, the induction of labor when properly done should be without any mortality above that pertaining to normal labors.

We are not advocating any extreme degree of intervention, but we draw attention to the view, that while only extreme cases of disproportion may be recognized and treated accordingly by the man of ordinary skill in diagnosis, the lesser grades of disproportion will be recognized and treated just in proportion to one's diagnostic skill. And when this skill can compass the field of the forceps, obstetrics will have taken a long stride to the ideal.

THE DETERMINATION OF SEX.

Following Schenk's widely advertised theory of sex determination, which for a time threatened to place the power to create males or females in the control of man, a paper by Dr. A. F. Davenport, read at the Intercolonial Medical Congress at Brisbane, has received extensive consideration.

He presented observations in support of the theory that