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Session III

Management of Twin Pregnancy

Discussion following papers presented by Dr. Schneider, Professor Leroy, Dr. McDonald*, Dr. Persson, Dr. Certulo*, Dr. Jandial, Dr. Sinha, and Professor Papiernik

Dr. Cetrulo asked Dr. Sinha what type of cervical suture was used in their study.

Dr. Sinha replied that all sutures inserted were Macdonald sutures and none were Shirodkar sutures.

Dr. Derom asked if even after alpha-fetoprotein screening 60% ultrasonic screening was still required for twin pregnancies.

Dr. Persson replied that the figure was 16, not 60, and that 5% were still missed.

Dr. Derom asked if Dr. Sinha's two groups were comparable, as he found it hard to accept that such a large difference in the incidence of premature labour was related only to the insertion or not of a cervical suture and not to some other factors.

Dr. Sinha replied that patients with any other abnormality during the pregnancy were excluded.

Dr. Derom then asked about the treatment of each group with bed rest.

Dr. Sinha replied that no patient had been treated with bed rest in either group. Particularly, Dr. Sinha reported that Professor MacGillivray, in studying twin pregnancies in Aberdeen, only assessed the state of the cervix around 28 weeks, and then the patients were treated at home and were not admitted.

Dr. Keith asked how many obstetricians in the audience were routinely using the cervical suture in the management of twin pregnancy and, when none admitted to routinely inserting cervical sutures, he concluded from the response that the finding of a dilated cervix by itself at 28–29 weeks' gestation was not important.

Professor Papiernik commented that the results of Dr. Sinha's study should be interpreted with caution as it was not epidemiologically possible to compare Aberdeen and London on account of educational and social differences. He felt that education of a pregnant woman, particularly in his own studies, had contributed greatly to a decrease in premature labour in his clinic, and he found it impossible to accept the findings of Dr. Sinha's paper.

Professor Nylander asked further about the question of bed rest in the patients in Dr. Sinha's two groups.

Dr. Sinha replied that in the groups where the cervical suture was inserted they were only hospitalised for two days.

Professor Nylander commented that, although Dr. Sinha had tried to make his two groups as alike as possible, there must be some major differences between them.

Dr. Sinha further described the area of London in which the study was done and commented that this was a more prosperous area of London with a tendency towards the upper social classes rather than the lower social classes, which would, of course, affect the premature labour rate.

Professor MacGillivray said that, whilst it was appreciated that this was not a controlled trial, the populations of the two areas were not markedly different and the perinatal mortality rate and the preterm labour incidence in singleton pregnancies were not different in the two areas. He also said that what Dr. Sinha's paper was suggesting was that the insertion of a cervical suture was tending to stimulate the cervix by the prostaglandin release. There was a gross difference between the groups, which could not be explainable on a population difference alone, as differences between the populations were likely to be minimal.

*The papers by R.R. MacDonald, "Twin antepartum mortality", and by C.L. Cetrulo, "Preventing morbidity and mortality of twin pregnancy", are not published in this issue.

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Dr. Jandial further commented that the Oxford workers had shown that cervical trauma of any sort would lead to prostaglandin release.

Dr. Derom commented, with respect to Dr. Sinha's paper, that he found it remarkable that only 5% of twin pregnancies in Aberdeen delivered before 26 weeks.

Dr. Campbell added that the particular group that Dr. Sinha was commenting on was a selected group of 50 patients only, and when all twin pregnancies for the area were examined, the pattern was as expected from other studies.

Dr. McDonald commented on Dr. Persson's data that it was remarkable that bed rest alone in twin pregnancies had reduced the mortality in twin pregnancies to that of singleton pregnancies.

Dr. Persson replied by saying that he would talk further about this in the afternoon session.

Dr. Cetrulo asked Dr. Persson what percentage of patients who turned out to have a twin pregnancy had measurements of fundal height that did not fulfill his criteria.

Dr. Persson replied that he did not know the exact number, but he commented that one had to examine 2% of the population to use the standards he had defined, with a sensitivity of 83% in the diagnosis of twin pregnancy by fundal height measurement.

Dr. Schneider commented that hPL measurement done routinely at 29–30 weeks in pregnancy was rather late to diagnose twin pregnancy as Dr. Persson did.

Professor Leroy and Dr. Derom added that the combination of hPL and hCG assay early in the second trimester between 16 and 18 weeks would detect 95% of twin pregnancies.

Dr. Persson commented that Dr. Schneider had interpreted him incorrectly and that the twin pregnancies were detected not specifically at 29–30 weeks, but at all stages.

Dr. Persson argued that Dr. Schneider's presentation of percentile growth on biparietal diameter was wrong in that he was merely assessing gestational age rather than the growth.

Dr. Schneider said that he had excluded all the twin pregnancies from the study when the gestational age was not known.

Dr. Persson argued that exclusion could only be accepted if they were randomly excluded.

Dr. Hall agreed with Dr. Persson that it was incorrect to exclude patients where gestational age was uncertain on account of the fact that they were a different group in many ways from those with certain gestation, and she felt that in studies such as Dr. Schneider's it was better to try to make a clinical assessment on the length of pregnancy using any other parameter that was possible – eg, postnatal scoring, but it was more epidemiologically correct to use them all.

Professor MacGillivray felt that he would like to know whether singleton standards should be applied to twin pregnancies, or whether there should be specific standards, as Dr. Campbell suggested, for women with twin pregnancies. He pointed out that Dr. Campbell had designed weight-charts for twin pregnancies, corrected for both gestational age and sex of baby, and said it was reasonable to do this because singleton standards took no account of the sex of the other twin and it was accepted that two females would have less birth weight than two males.

Professor Leroy felt that, as with hormone production from the feto-placental unit, standards were reset for twins not at double, but at approximately one and a half times, it would be reasonable to do so for other things.

Dr. Keith, in closing the first session, reemphasised the importance of accurate assessment of gestational age and felt that it was not correct to rely on the date of the last menstrual period in at least 10% of the population.

Professor MacGillivray commented that bed rest in twin pregnancy was the most difficult form of management to evaluate in a controlled manner, and he wondered how many of Dr. Cetrulo's patients who were treated with bed rest developed deep vein thrombosis.

Dr. Cetrulo replied that they had had no problem with deep vein thrombosis, but in their programme, bed rest was carried out at home and it was difficult for them to know whether the patients had complied with the advice. Patients were only hospitalised if there were any cervical changes.

Dr. McDonald stated that bed rest was accepted as improving placental function in terms of, eg, estrogen secretion, which was almost invariably improved when the patients were treated with bed rest.

Professor MacGillivray inquired as to which period of gestation bed rest considerably improved estriol secretion.

Professor Nylander commented that admission to hospital for bed rest was perhaps valuable in areas where transport problems to the hospital might be a major difficulty.

Professor MacGillivray commented that there were two different issues, one was the effect of bed rest and the other was hospitalisation for optimum delivery.

Dr. Schenider asked Dr. Cetrulo if he was advocating Caesarean section for all twin pregnancies when the presentation was other than vertex.

Dr. Cetrulo replied that he was.

Dr. Schneider further commented that he found this was a contradiction to the fact that Dr. Cetrulo allowed more than an hour between the deliveries of two twins in cases where there were two vertex presentations.

Dr. Cetrulo replied that there was a monitor attached to the second twin and a continuous printout of fetal heart rate was obtained and that there was no reason to intervene unless the fetal heart rate pattern became abnormal.

Dr. Schneider disputed this.

Dr. Cetrulo said that section was performed because he felt that manipulations such as version and correction of the lie in the second twin contributed to morbidity and mortality.

Professor Nylander asked Dr. Cetrulo if he performed a Caesarean section on every breech in the singleton pregnancies.

Dr. Cetrulo replied that he did.

Dr. Keith commented that only time would tell whether such a policy as Dr. Cetrulo's would be successful, but it was important to remember that Caesarean section also contributed to maternal morbidity and mortality.

Dr. Hall further commented that one item against it was that the woman might have existing family at home and that bed rest at home would harm her for future looking after of the twins even if she did not have existing family already.

Dr. Derom asked Dr. McDonald if he had done abdominal measurements by ultrasound as well as biparietal diameter measurements.

Dr. McDonald said he had not.

Professor Thiery said that he thought that Dr. Cetrulo's ritodrine regime could be improved by perhaps increasing the dose a little and certainly by shortening the interval between doses.

Dr. Cetrulo agreed with this.

Dr. Jandial asked Dr. Cetrulo what were his views on the use of corticosteroids in preterm twin labour.

Dr. Cetrulo advised that he believed that this was advantageous to women going into preterm labour before 34 weeks.

Dr. Lazar asked whether an oxytocin stress test might be of value in cases such as Dr. McDonald described.

Dr. McDonald felt that, while he had used the oxytocin test in singleton pregnancies, he did not feel it was very useful in antenatal heart rate fetal monitoring.

Professor Leroy felt that total oestrogen excretion, and perhaps amniotic fluid measurements, might help. However, the difficulty in obtaining samples from each sac was pointed out.

Professor Thiery commented that hospitalisation with bed rest was contrary to the use of such tests as the oxytocin stress test.

Professor Leroy said that, as far as he knew, there were no controlled studies on the effect of bed rest.

Dr. Cetrulo felt that multiple gestation was a contraindication of stress test and it was better to wait for uterine activity and measure the response of the fetal heart rate to that.

Professor Whitfield commented that they had been doing antenatal fetal heart rate monitoring in primigravid twin pregnancies and, as yet, had not used oxytocin, but, waiting long enough, Braxton Hicks contractions and movements occurred in them all.