

# Science for Twins/Twins for Science

## *1. Multiple Pregnancy, Neonatal Development, and Twin Care*

### OBSTETRICAL PROBLEMS PERTAINING TO MULTIPLE PREGNANCY

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Fetal risk in twin pregnancy is recognized as being about 3 to 4 times higher than in singletons. The various factors of this increased mortality will be enumerated and reviewed.

Pathological effects associated with MZ origin are mainly due to the "third circulation" occurring in monochorial twins. Three situations can be distinguished: (a) hemodynamic equilibrium resulting in fetal growth impairment, (b) strong hemodynamic imbalance inducing fetal death, (c) moderate imbalance as the cause of the "intertwin transfusion syndrome". The acardiac and papyraceus fetuses are to be considered as particular cases of the same problem.

Other risks associated with MZ twins are the higher rate of malformations and umbilical cord entanglement in monoamniotic twins.

The conjoined effects of prematurity and intrauterine growth retardation are undoubtedly the main cause of fetal death in multiple births. Therefore, some consideration will be given to the underlying physiopathogenic factors.

Prevention of twin weight defects demands early diagnosis of multiple pregnancy. As little can be expected from classical clinical methods, the obstetrician has to rely on more sophisticated techniques such as fetal ultrasonography. Even with an early diagnosis, at the present time there is no satisfactory treatment capable of preventing prematurity and retarded fetal growth. In

this specific context, bed rest would appear as a fallacy. Nevertheless, special care should be taken to overcome some frequent complications such as toxemia, premature rupture of membranes, placenta praevia, and anti-Rh isoimmunisation.

Delivery problems are mainly associated with the second twin whose mortality rate is definitely higher because of more frequent abnormal presentation and relative hypoxia. These difficulties can easily be reduced by proper obstetrical management including liberal oxytocic perfusion during labor and reduction of time interval between both births.

Rare but major mechanical delivery complications arise from twin interlocking or impaction and from conjoined twins. From the maternal point of view the main problems appear to be eclampsia and third-stage hemorrhage.

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### TWIN PREGNANCY AS A HIGH-RISK PREGNANCY

New Medical-Statistical Data from the  
German Democratic Republic

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In 1972 the rate of multiple births showed a much more substantial decrease than in the years before. In the period 1963-1971 it dropped from 20.3‰ to 19.3‰ and in 1972 to 18.3‰. The decrease in 1972 was due to the fact that especially older