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Multiple Pregnancy, Epidemiology, Gestation and Perinatal Outcome

Edited by Louis G. Keith, Emile Papiernik, Donald M. Keith, and Barbara Luke. New York: The Parthenon Publishing Group, 1995, 696 pp.

Unlike other monographs on twins, which deal mainly with specific problems, this book a comprehensive and up-to-date source on multiple pregnancies. Eighty-six authors with extensive experience in the world of twins, many of whom are international authorities in the field, have contributed to the nine sections of the text, which contain fifty-two chapters. The two introductory chapters consider the science of twinning, and contain a general discussion on the role of research in twin medicine and the twin method. Seven chapters form the body of the second section, which is dedicated to the biology of twinning. This includes discussions of the mechanism of monozygosity, the frequency and survival probability of natural twin conception, congenital anomalies and pregnancy loss, conjoined twins, and placentation. The two chapters on vanishing twins are particularly worthy of note, since they cover a subject that has been overlooked by other monographs on twins. Various aspects of the epidemiology of twins in the USA and Europe are extensively discussed in the third section, which also incorporates data on infant mortality and the effect of assisted reproductive technology on the incidence of multiple gestation.

Diagnosis is the general theme of the fourth section, which introduces what the Editors justly consider the 'core' of the monograph. An extensive discussion is provided of ultrasound scanning techniques, including pregnancy dating and detection of fetal defects. Separate chapters discuss maternal, clinical and biochemical changes, psychophysiological adaptation to multiple pregnancy, and dietary recommendations. The nine chapters of section five debate several subjects dealing with the assessment and management of fetal wellbeing. These include the safety and effectiveness of first and second trimester prenatal diagnosis invasive techniques; the options for antenatal surveillance for twin gestations; the range of possible influences on fetal behaviour; the course of pregnancies with three or more fetuses; the effect of multiple pregnancy reduction procedures on specific outcome variables; the frequency and types of twin-to-twin transfusion syndrome; outcomes in monochorionic twins and their prenatal treatment, and the antepartum complications in the intrauterine fetal demise of one or more fetus.

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These separate discussions precede section six on antepartum considerations. The physiological basis for the increased incidence of preterm labor in multifetal gestations and the potentially associated clinical factors are explored together throughout with the measurements for preventing very early preterm births and improving perinatal outcome. Specific chapters cover: the role of antepartum cervical examination as it relates to the process of preterm and term labor; an intrapartum management plan for different combinations of twin presentations; analgesic and anesthetic treatment, and the clinical management of monoamniotic twins and of triplet and higher-order pregnancies. Three chapters full of practical recommendations are assembled in section seven, which addresses postpartum considerations. These describe various issues surrounding the breastfeeding of multiples and the best techniques to accomplish this, maternal-infant bonding, and suggestions for its enhancement, as well as guidelines for assisting mothers of multiples and decreasing their risk for depression or its more serious sequelae.

The section on childhood growth and development focusses on a number of major topics. The acceleration of the maturation of the developing brain and lung is illustrated using of dizygotic twins as a model. The cognitive and neurological outcome of multiple births is presented, together with the biological and environmental factors affecting these processes, and some of the issues that these data raise. One chapter is devoted to the role of antenatal factors that impact on long-term growth, while another describes statistical and laboratory methods for assessing zygosity after birth, with particular emphasis on DNA techniques, which have made possible an unprecedented degree of accuracy in determining monozygosity.

The final section of the volume discusses parental concerns. Based on Donald M. Keith's extensive experience of talking to mothers of multiples, this section contains answers to a series of questions raised; ethical considerations in the obstetric management of multifetal pregnancies; the experience of the National Organization of Mothers of Twins Club Inc., and the United Kingdom experience of parents of multiples clubs and clinics. The book closes with a special section on support organizations.

This work is a monumental source of information for physicians and parents and also seems likely to serve as a basis for study and discussion. Its varied content will be found stimulating all persons involved in research in this area of medicine or in the care of twins. The comprehensive information assembled by the four editors makes *Multiple Pregnancy: Epidemiology, Gestation & Perinatal Outcome* a reference work for an international audience.

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