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Symposium
Maternal and Fetal Physiology in the Perinatal Period

An Obstetrician's View of Anesthesiology

FOR ONE who was introduced to obstetrical analgesia as the giving of "whiffs" of nitrous oxide in the course of uterine contractions during labor and to the administration of anesthesia at delivery, by ether through a cone, it is gratifying to see an issue of ANESTHESIOLOGY devoted entirely to the problems of obstetrical analgesia and anesthesia. It is tacit recognition of their importance.

That the disciplines of Obstetrics and Anesthesiology should work closely on common concerns is deeply rooted in the evolution of medicine, for operative delivery was one of the earliest of surgical procedures. In fact, the introduction of agents to relieve pain during labor and delivery marked a milestone both in the history of Anesthesiology and of Obstetrics when Sir James Y. Simpson first introduced chloroform. But it has only been in the past three or four decades that ways and means to afford pain relief during labor and delivery have been systematically studied.

In the late 1930's there began to be a reduction in maternal mortality and to a lesser degree in perinatal mortality. Many reasons might be offered to account for these declines, not the least of which was the development and application of the many forms and methods of anesthesia that permit the anesthesiologists to select one that will afford the maximum safety to both the mother and infant. Despite advances in obstetrical care, the problems of obstetrical analgesia and anesthesia are even more subtle than heretofore. For, with the therapeutic advances in medicine, one encounters a greater number of parturients with medical diseases who, only a few short years ago, would have been wisely advised against undertaking a pregnancy. These cases pose special obstetrical and medical problems including the choice of the safest form of anesthesia for the individual patient. Also, and rightfully so, greater attention is now being directed toward removing every possible risk from the fetus in the course of labor and delivery.

It is now accepted that the so-called "high-risk" pregnancies, many of which terminate prematurely, contribute the greater majority of cases of cerebral palsy, mental retardation, and allied neurologic deficits. Curative measures for these afflictions have been singularly unrewarding and thus any reduction in the number of these cases will reside in the area of prevention. It follows that those responsible for standards of obstetrical care in hospitals and at the national level must address themselves repeatedly to the question of whether or not the highest quality of anesthesia is available at all times, and especially for the patient with a "high-risk" pregnancy.

Moreover, no obstetrical patient may properly be regarded as a "routine case," and the safety and welfare of the expectant mother and her baby are poorly served when the administration of anesthesia is placed in the hands of persons who are not totally familiar with the benefits and hazards of all methods.

To discuss the indications and contraindications of each form of anesthesia would serve no useful purpose here. Rather, it is more important that we stress the responsibility of the obstetrician of harkening to the advice of the anesthesiologist who, should be aware of and responsible for the selection of the appropriate methods of anesthesia. Any decision regarding choice of anesthesia is dependent upon the realization of certain of the normal changes in pregnancy and of the physiology of the fetus and the newborn as described in some detail in this volume.

However, it is unfortunate that in this country at large, the choice of anesthesia for the obstetrical patient is not usually determined by the anesthesiologist: for all too often in a general hospital this individual is not available during the witching hours of midnight to dawn or during the forenoon when a heavy surgical schedule demands his time. There are simply not the adequate numbers of anesthesiologists to furnish expert care for the complicated pregnancies. This lack is unquestionably the greatest in-hospital deficiency in obstetric care today. Thus, oftentimes the accoucheur must "do it himself" or it will go undone. The writer suspects that this is largely responsible for the excessive enthusiasm for one type of anesthesia over another, as for example the seeming preference for local block especially that involving the cervical area. Although this writer's observations are admittedly limited, it is his impression that this latter form of anesthesia is commonly associated with a fetal brachycardia, perhaps not a serious complication, but one nevertheless dismaying to the patient's medical attendant. So, again, it is not the type of anesthesia chosen that is the paramount issue but rather the assurance that all methods are available and that they be administered by an expert anesthesiologist.

It is a priviledge to lend support and encouragement to the efforts of this Journal, its Editors and the specialty they represent. It is especially pleasing to see the subjects in this Symposium discussed with such vigor by so many experts all concerned with advancing obstetric care.

Only with respect for the tremendous problems that face us in providing high standards of patient care, can we plan intelligently to provide improved methods of anesthetic management for the parturient and her infant.

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Obstetrics and Anesthesiology

THE DELINEATION of the branches of medical practice, and their improvement and standardization through the media of specialty boards, are hallmarks of significance toward better maternal and perinatal care. Both the American Board of Obstetrics and Gynecology, founded in 1930, and the American Board of Anesthesiology, founded in 1941, have profoundly influenced the well-being of the family and the nation.

Historically, the wellsprings of compassion of the physician for parturients suffering under the punishment of the *poena magna* compelled the Professor of Midwifery at the University of Edinburgh, James Young Simpson, to seek in 1846 and to find in 1847 his *opus vitae* in the use of ethyl ether and his clinical introduction of chloroform to control the pains of childbirth. Three-quarters of a century later, in 1933, from the field of General Practice which included Obstetrics and Gynecology, Ralph Milton Waters, with a developing interest in resuscitation and safe anesthesia, turned his major attention toward the founding of this specialty on a scientific basis by becoming the first University Professor of Anesthesia in the United States, at the University of Wisconsin.

The major contributions of Carl Gauss of the Freiburg Frauenklinik in introducing the concept of *dammerschlaff* as a form of balanced premedication and amnesia during labor, and the early standardization of meperidine (Demerol) as an analgesic in Obstetrics, by Frederick