Director or Chief of Obstetric Anesthesia should be a qualified anesthesiologist. He should be responsible for the technical medical policies and procedures for the conduct of the service and for the supervision of the service. . . . The Director or Chief of Obstetric Anesthesia should establish guidelines approving those who are to administer or to supervise the administration of anesthesia to the obstetric patients. Those approved should be fully competent in all forms of inhalation, intravenous and regional anesthesia as well as in the management of maternal and perinatal complications. At least one such qualified person should be on hospital premises in the vicinity of the delivery suite at all times and should have no other concomitant responsibilities."

The wisdom of advocating the continuous presence of a qualified anesthesiologist in the obstetric suite has been emphasized by three recent emergencies occurring in our delivery rooms. All three developed in patients delivered by the Lamaze method. The first was that of a grand mal seizure with aspiration of regurgitated gastric contents during administration of a pudendal block to a healthy primigravida. A diagnosis of inadvertent intravenous injection of 1 per cent lidocaine was made. The anesthesiologist, called from his nearby office, was able to start treatment within one minute. Therapy consisted of pharyngeal and tracheal suctioning, intravenous injection of 200 mg. of thiopental, and administration of 100 per cent oxygen with intermittent positive pressure via an endotracheal tube. Since oral antacids are given to all our obstetric patients regardless of the planned anesthetic method, the pH of the aspirate was above three, and the patient made an uneventful recovery after she regained consciousness. The infant, delivered by outlet forceps immediately after the convulsion, was in good condition.

The second patient, a healthy 22-year-old woman, was delivered of her second baby spontaneously after local infiltration of the episiotomy site; she was in a semisitting position to facilitate her bearing-down efforts. Shortly following expulsion of the placenta, she complained of feeling faint and appeared pale. The anesthesiologist was summoned. On entering the delivery room, he noticed a "pool" of blood underneath the table which had not been observed by either the obstetrician or the nurse. Quick palpation revealed a fast and thready pulse. The table was immediately leveled, the rate of the intravenous infusion of 5 per cent dextrose in lactated Ringer's solution was increased, and oxygen was administered by face mask. Only then was the blood pressure taken (80/40 mm. Hg). Blood loss was estimated to exceed 1,000 ml., but, aided by a predelivery hematocrit of 38 per cent, the patient recovered without blood replacement. The postpartum hematocrit was 26 per cent.

The third complication involved the newly delivered infant. Just before birth, thick meconium started to extrude from the vagina, and the anesthesiologist was promptly called. The infant, born cyanotic and limp, was immediately placed in the heated crib. Following rapid pharyngeal suctioning, the trachea was intubated and aspirated, yielding a large clot of viscid meconium. The infant's postnatal course was benign, with only mild respiratory distress.

Instead of being "summoned" in case of emergency, the anesthesiologist or anesthetist should be encouraged to participate actively in every delivery. Monitoring of vital functions, diagnosis of the cause of complications, and institution of specific treatment are of the same significance to maternal and neonatal well-being as is the safe administration of anesthesia. Nationwide implementation of the New York City guidelines will assure the best possible care of mother and infant throughout our country.

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Sex selection

To the Editors:

Monarchs have traditionally wanted a boy first as heir to their throne. This has held true for most parents. In response to a questionnaire sent to 4,000 couples selected at random from family planning clinic rosters, approximately two thirds wanted a boy first, with the next child almost invariably desired to be a girl. If two or three of the same sex had occurred, then the opposite was desired. Most would be content with a boy and girl. If one child had been lost, most often one of the same sex was wished for replacement and very seldom were two of the same wanted. Almost identical responses were obtained by Hatzold[5] of Munich, Germany, in 1974.

Influencing the behavior of the sex-determining sperm is not free from controversy. Etzioni[3] has stressed the possible negative and positive social implications of the power to preselect the sex of the offspring. Some have expressed the opinion that this line of research should not be pursued at all, that people should not have this kind of power and choice for fear that passing fads and preferences could drastically overbalance the population one way or the other. Others favor this option as a means of reducing the population, stressing that most parents who might go on trying for a boy or girl would probably be content with one of each.

Information in this field indicates that the day when preconceptional sex selection is possible may not be too far off, in which event education in this area will be very important, just as it is in good health, nutrition, and birth control. Much is already known about aiding

nature in choosing the baby's sex by judging the cervical milieu and timing coitus.[11, 12]

The principle involved is related to the characteristics peculiar to the X and Y sperm. Painter[9] studied the behavior of the sex chromosomes during meiotic cellular division. He found that in both the primary spermatocyte of the first meiotic division and the secondary spermatocyte of the second meiotic division, the X and Y chromosomes and the divided X and Y, respectively, separate early and precede the autosomes to a central position at the opposite poles of the dividing cell. When stained with fluorochrome quinacrine and viewed under fluorescence microscopy, Ericsson and associates[2] found that the smaller-headed sperm contain the Y chromosome.

The modal value on the frequency distribution curve in 500 individuals revealed that 66 per cent were of the smaller-headed type, which have a greater migratory rate when tested in capillary tubes filled with ovulatory cervical mucus.[11] The Millipore filter with appropriate pore size yields a differential filtration of 96 to 98 per cent, i.e., for passage of the Y sperm, into optimal cervical mucus.

Universally, more males are conceived and born; however, in utero and in every age group throughout life more males die.[13] The physical and chemical characteristics of the ovulatory cervical secretion preferentially favor the motility rate of the more prevalent Y sperm and, consequently, male off-spring. Levy[8] and Guttmacher[4] cite the average birth ratio as 100 females/105 to 107 males. The former found that "Among the Jews of Zarist Russia the ratio was 100:150, sometimes even higher." Fifty years ago, he showed that this ratio ". . .only proves right among orthodox Jews, whose conjugal life is conducted according to religious regulations." Accordingly, these couples have their first coitus near or at ovulation time with the cervical milieu optimal for conception.

By controlling the time of artificial insemination or coitus, the birth sex ratios have been significantly altered. The nearer the insemination to ovulation, the greater the incidence of males born. Kleegman,[6, 7] Benedo,[1] and Rorvik and Shettles[10] attained 80 to 85 per cent success rates. In other words, fresh egg and fresh sperm enhance the possibilities for male offspring, while fresh egg and older sperm tend to produce females.

As the world population increases, it becomes more likely that the decision of whether or not to have children will be paramount. It is conceivable that the number of offspring might be limited in order to live within the limits of available food, space, and resources. Many religions and cultures prize a son and encourage a couple to continue until a male is born. If the first or second child could be assured to be male, there would be no need for such large families.

If parents could select the sex of their children and not just settle, they surely would by and large elect to do so, making for greater ease physically, economically, and emotionally. There is the risk of abuse of such information, an argument against sex selection. However, if sex selection is used properly, untold happiness should ensue.

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Reply to Dr. Polansky

To the Editors:

This letter is in reply to Dr. Polansky's Letter to the Editors published in the Journal (122: 903, 1975) concerning my article, "Androgens in breast cancer. III. Breast cancer recurrences years after mastectomy and increased androgenic activity" (Am. J. Obstet. Gynecol. 121: 169, 1975).

Dr. Polansky concluded that estrogens are responsible for breast cancer development, whether the origin of the estrogens is ovarian or peripheral, from androgen conversion.

Estrogens perhaps may be the final substances which act on the breast at the cellular level to initiate abnormal proliferation, but this assumption does not invalidate my theory that increased androgen production initiates the whole mechanism. In breast cancer patients, whether pre- or post-menopausal, the ovarian interstitial tissue may be hyperplastic, and, as this side of the ovary is involved in androgenic activity, it is quite logical to deduce that ovarian androgenic activity will be increased.