

Forensic Anesthesiology?

THE ARTICLE in this issue of ANESTHESIOLOGY describing a perianesthetic instance of child abuse that caused a child's death on the second postoperative day¹ brings to the forefront the very disturbing problem of patient abuse in the hospital. This is the first such case reported in the anesthesia literature. Those who practice pediatric anesthesia will find that this case has implications that extend beyond the operating room suite and cross many specialty lines.

The trend to have family members present at the bedside to provide mental and physical support to all patients has grown considerably over the past decade, particularly in pediatrics. Families are now encouraged to spend as much time as possible with a patient, including extended visiting hours (even in intensive care units) and sleeping facilities at the patient's bedside. Some anesthesiologists advocate the presence of parents during the induction of the child's anesthetic. This privilege is appreciated by most of our patient's families but, as this article demonstrates, provides an increased opportunity for disturbed family members to harm the child. There have been a number of newspaper reports in the past five years documenting misguided efforts by family members (as well as members of the medical profession) *i.e.*, the nurse in Ann Arbor, Michigan, who allegedly killed elderly patients with an intravenously administered neuromuscular blocking drug, the physicians in New Jersey and Texas who allegedly killed their wives with intravenous insulin, and family members who have deliberately disconnected mechanical ventilators from patients. The dilemma of the medical profession is to encourage members of the patient's family to participate in the health care of the patient yet not provide undue opportunities for family members to either intentionally or unintentionally harm a vulnerable patient.

The authors point out in their conclusion that physicians must be alert for developments in the patient's medical course not explained by nor related to the patient's disease processes. Although most states have legal requirements for any health care professional to report to the authorities all instances in which child abuse may be suspected, few anesthesiologists are well-acquainted with the stigmata of the abused or neglected child. Anesthesiologists, however, are not exempted from this legal requirement.

The stigmata of child abuse are many and varied.² Accidents inappropriate for the child's age (such as falling down a staircase at 6 months of age, before the child can crawl or walk) might be overlooked. A history of multiple fractures, circular cigarette and linear electrical burn scars are presumptive evidence of child abuse. Scalding burns during which the child was held by an extremity and other parts of the body submerged in hot water, may be less obvious. The occurrence of similar injuries in siblings is suspicious. The suspicion of health care professionals should be higher in children born prematurely and hospitalized for a long period early in life. Children who have a chronic disease suffer a higher incidence of child abuse than normal children. Anesthesiologists will detect child abuse most frequently during the preoperative evaluation of the patient.

Monitoring the patient's hospital course is also important in preventing patient abuse. As anesthesiologists, we should be alert to unexpected results of our therapies. For example, if an anesthesiologist consistently uses the same premedication regimen, over sedation from the premedication might be due to variability in patient response to drugs but also could be due to the presence of a drug not prescribed by the physician. Thus, it is important to record the patient's mental status at the preoperative evaluation, prior to induction of anesthesia, immediately upon emergence from anesthesia, and prior to discharge from the recovery room. As part of the evaluation of mental status, one probably should examine pupil size to ascertain that it is appropriate for the drugs recently administered to the patient. An inappropriate pupil size should raise suspicions. Greater emphasis should be placed on preventing family members from giving a patient anything, medicine or food, that has not been directly obtained from hospital personnel. If child abuse is suspected, follow up should be aggressive. A simple drug screen easily done on urine uses ferric chloride (FeCl_3). After FeCl_3 has been added to a urine specimen, the color of the urine depends on the drugs present. (This test is specific for only five to six drugs.) If the FeCl_3 urine drug screen is positive or the history is very suspicious, a serum drug screen and/or a quantitative urine drug screen should clarify if drugs are responsible. As part of the workup of the patient's unexpected condition, particular note should be made of any relationship between the time of family member visits and deterioration in the patient's condition. For example, one of the authors (SCN)

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cared for a patient whose hospital discharge was delayed a number of days due to the child's somnolence at the intended time of discharge from the hospital on successive days. Investigation revealed the patient's mother was adding chloral hydrate to the tropical fruit punch she was obtaining from hospital personnel for her child.

Particular care should be taken with children at increased risk from the extra opportunities for harm to be done to them during critical phases of their hospital course. For instance, when a patient returns to the intensive care unit following cardiopulmonary bypass, the patient's mental status usually has not returned to normal. Drugs or air, injected intravenously during this immediate postoperative period, could produce results in the patient which would be difficult to distinguish from known complications of cardiopulmonary bypass. In addition, these patients are critically ill and the health care personnel involved in their care are frequently busy taking care of the patient and have limited opportunity to closely observe family members visiting the patient. Perhaps visiting, in these circumstances, should be curtailed and/or the family members chaperoned by a health care person whose sole responsibility is the care and observation of the visitors. Some of the same concerns apply to children following neurosurgery.

In conclusion, the members of the health care profes-

sion, in assuming responsibility for a patient's medical treatment, not only have an obligation to see that they do no harm to the patient, but also to protect the susceptible patient from harm. In this case, the actions of parents and other visitors must be closely monitored.

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