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Editorial Views

Familiarity as a Basis for the Practice of Anesthesiology

APHORISMS have probably been with us since man first started forming sentences. Terse sayings embodying general truths, aphorisms can serve as convenient short-cuts for the expression of concepts too complex for ready statement in other ways. They lend to language variety and color that would be sadly missed were the same concepts to be put in less pithy terms. The trouble with aphorisms is that when they have been repeated often enough they can start to acquire a patina of truth that may bear no relation to the validity of the concepts that inspired them. At this point aphorisms become a substitute for thought. They no longer perpetuate truth; they perpetrate half-truths and untruths.

Under most circumstances it may not make much difference whether an aphorism embodies the truth. Many aphorisms are pleasant if banal generalizations. Such is not the case, however, when aphorisms are used in medicine. Patients should not have to put their lives into the hands of those who think in terms of aphorisms and who cannot differentiate between a well-turned adage and the real facts of the matter.

Anesthesiologists, like other physicians, have their quota of aphorisms. Some anesthetic aphorisms are too fatuous for serious consideration. "Give the patient plenty of oxygen and don't let the blood pressure fall," a favorite of non-anesthesiological consultants in preoperative visits with high-risk patients, falls into this category. But there are aphorisms anesthesiologists can ill afford to ignore. Such as "Never curarize a patient unless you *know* you can ventilate him." The problem in use of anesthetic aphorisms lies not in those that are patently silly, nor in those that are obviously sound. It lies in identification of those the accuracy of which is open to question. They deserve our closest scrutiny. Their very facility of expression and the authority born of continued repetition may mask basic flaws in the concepts upon which they are founded.

One popular anesthetic aphorism that deserves re-examination is that which, in one form or another, says "The best anesthetic is the one the anesthetist is most familiar with." Especially applied to high-risk patients, this aphorism, repeated by many people in many ways, is becoming so generally accepted as an eternal verity that one almost expects to see it chipped in granite in a prominent place, Mt. Rushmore perhaps.

The beauty of this popular aphorism is that it seems so utterly sensible. Indeed, it *is* so utterly sensible. Who can argue with the fact that only a fool would use an anesthetic he was not versed in, especially under difficult circumstances?

The trouble with the aphorism lies in the implications that follow when, as all too often

is the case, it is subscribed to blindly. The implications of this aphorism are not trivial or based on mere semantics. They raise issues that strike to the heart of modern anesthesiology. One implication is that what is important is not what anesthetic is administered but rather how it is administered. Clinical skill is, of course, of supreme importance. The bumbling anesthetist who is all thumbs is a certifiable hazard regardless of whether he is caring for patients of A.S.A. physical status 1 or 5. But is that all there is to anesthesiology? Doesn't pharmacology play any role? Are all anesthetics really so nearly equal that it makes no difference which anesthetic one administers, so long as he does it gracefully? The pharmacologic nihilism inherent in this egalitarian attitude towards anesthesiology staggers the mind. It runs so completely contrary to all we know about anesthetics. Ketamine is not thiopental. Halothane is not cyclopropane. Fentanyl is not morphine. Spinal anesthesia is not general anesthesia. Anesthetic agents and techniques *are* different. Each has peculiar pharmacologic properties. Each has its own indications. Each has its own contraindications. To believe otherwise is seriously to underestimate the pharmacologic richness and complexity of anesthesiology, to say nothing of depriving the patient of the advantages of one anesthetic while avoiding the dangers of another. If it really makes no difference which anesthetic is administered, then anesthesiology is intellectually and pharmacologically so impoverished we should cease teaching pharmacology to residents and medical students and instruct them in the use of just one anesthetic. Then the anesthetist can rest secure in the knowledge that *ipso facto* he is always administering the safest possible anesthetic. How totally wrong. How dangerous.

An equally inimical implication of the "give-the-anesthetic-you're-most-familiar-with" aphorism is that if it makes no difference what one does so long as he knows how to do it, why bother learning to do more than one thing? Why learn to give good spinal anesthesia if a little thiopental followed by a bolus of succinylcholine and an endotracheal tube with halothane fits all patients, short, tall, young, old, fat, and lean? Why learn how to do an awake blind nasotracheal–endotracheal intubation smoothly and comfortably? Why learn to do a brachial block? The reason one must know how to perform a variety of anesthetic maneuvers is simply that not all patients are the same, not all operations are the same, and not all the conditions under which anesthesia must be administered are the same. The same anesthetic technique should no more be used for all operations and all patients than should the same road always be used to get to Rome.

The truly complete anesthetist has had training adequate to permit him or her to administer all commonly accepted anesthetics and to use all commonly accepted anesthetic techniques, not just some anesthetics and some techniques. Only in this way can all, not just some, patients be safely and successfully anesthetized; that, after all, is the name of the game in anesthesiology: taking care of *all* patients, not most of them.

The competent anesthetist, for example, does not subject a 250-pound 25-year-old truck driver having a hemorrhoidectomy in the prone position to the physiologic trespass of general anesthesia because the anesthetist is not expert in regional anesthesia. The competent anesthetist does not require an intravenous route for induction of general anesthesia in, say, the chubby 6-month-old, in the burn patient, or in the dozens of other situations in which venipuncture is impossible or inordinately difficult. The competent anesthetist knows how to administer straightforward inhalation anesthesia. He is as much at home with balanced anesthetic techniques as with halogenated hydrocarbon anesthetics. He may even, if truly competent, be equally skilled in the use of nonhalogenated inhalation anesthetics.

The complete anesthetist, with quiet self-confidence born of experience with many agents and techniques, adapts his anesthetic management to the requirements of each patient's physical and emotional status and to the requirements of the proposed operation. If he cares for 750 patients a year, he orchestrates and selects anesthetic drugs and procedures to assure that each of his 750 patients receives the best that modern anesthesia has to offer. The Renaissance man of

the operating room, not the product of intellectual inertia or a Pavlovian reflex evolved from a "do-what-you-are-familiar-with" philosophy, he gives 750 anesthetics a year, not one anesthetic 750 times.

The complete anesthetist is made, not born. The making process must start as soon as he starts in anesthesiology. The day a beginning resident gives his first anesthetic he must be made aware of the fact that while the particular anesthetic technique he is being instructed in is safe, other approaches, which he must also eventually master, also exist. The anesthetist in training must be methodically exposed to all anesthetic drugs and techniques by teachers who themselves are competent in their use. Only then can the student of anesthesiology appreciate its breadth and scope. Only then will he be prepared for every patient he will be called upon to care for.

To achieve the requisite expertise in the use of all anesthetic drugs and procedures requires that the student–resident be taught new and different approaches even when other equally satisfactory methods may be available. To do predictably reliable sciatic and femoral blocks for operations below the knee requires that the resident use these blocks to gain experience, even when spinal or epidural anesthesia may be as satisfactory. Then, when confronted with cases in which such blocks are indicated, he knows how to do them. The place to learn new techniques and agents is in situations in which they are not absolutely indicated. This requires imagination on the part of the faculty teaching the resident. It also requires a healthy curiosity on the part of the resident. An unfortunate aspect of residency training today is an all-too-frequent lack of systematic exposure of residents to a variety of drugs and procedures. The result is ever more recruits to the "do-what-you-are-familiar-with" school of thought.

Once an anesthetist has achieved expertise in the use of various drugs and procedures, he must, to maintain his skills, continue to use them. He must deliberately search out or even create situations in which he can employ techniques and drugs which, while little used in the ordinary course of events, may be best for select circumstances. The anesthetist who performs his annual brachial block only when it is absolutely indicated will not and cannot do so safely, smoothly and efficiently. In fact, the results may well confirm in the minds of observers that a standard one-drug–one-technique approach is indeed best for all patients. Proficiency under special or adverse conditions requires repeated use under less adverse, more normal circumstances.

An anesthesiologist must be familiar with the techniques and drugs he uses. But he must aspire to familiarity with a host of drugs and techniques, not just one or two. Familiarity as a basis for the practice of anesthesiology should serve as a stimulus to widen the scope of anesthetic teaching and practice, not as an excuse to justify the insecure or inadequately trained. The objective of modern anesthesiology is excellence in *all* aspects of anesthesiology. The sooner this is accomplished by abandoning the "do-what-you-are-most-familiar-with" aphorism, the better for the specialty. And the better for the patients we care for.–*N. M. G.*