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Editorial Views

A Matter of Definition

THERE is considerable discussion and some controversy as to the proper scope of the clinical practice of anesthesiology. To some, a significant development in practice has been the serious engagement of the anesthesiologist in clinical units devoted to the intensive care of the critically ill patient, including those in respiratory failure.

These broadened interests of the anesthesiologist in areas in addition to those of his "usual" work are shared by other specialties of medicine. There is nothing unique in this pattern since there is nothing hard and fast as to the boundaries of a given specialty. For example, the specialist in internal medicine for a great many years has concerned himself with an activity that others might have considered applied electrophysiology, *i.e.*, the use of the electrocardiogram as a guide to the diagnosis and prognosis of heart disease. The internist has also concerned himself with the problems of management of patients with renal disease, including the use of the artificial kidney and its therapeutic application of hemodialysis. Others might consider this activity the province of the urologist or the surgeon interested in transplantation biology. The general surgeon is perhaps the most eclectic and wide-ranging of all specialists. In addition to his traditional role in abdominal surgery, he is comfortable in thoracic, open heart and vascular surgery, and in those aspects of preoperative care which could properly be considered applied biochemistry. Concerned with the airway, including its diagnostic and therapeutic aspects, have been specialists in otolaryngology, thoracic medicine, thoracic surgery, anesthesiology, and individuals who consider themselves specialists only in endoscopy. Other examples of the blurred nature of the definition of the edges of any specialty in medicine come readily to mind.

Most of these activities have been, on the whole, rather amicably divided by mutual consent. There are some collateral activities to the main core of specialties, however, which have aroused considerable controversy and on occasion serious disagreement. The orthopedic surgeon and the neurosurgeon, for instance, often claim jurisdiction over the management of the patient with an herniated nucleus pulposus. The obstetrician and the pediatrician have, from time to time, found a certain amount of conflict in the control of the care of the newborn infant. Specialists in oncology have had disputes with radiotherapists

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and general surgeons in the treatment of patients with cancer.

In view of the difficulties in defining the precise nature of any specialty, it is not too surprising to note that there are occasional instances of conflict in the therapy of patients with acute medical problems in intensive care units, including those with respiratory failure. Surgeons, internists and anesthesiologists have all been active in this field and have had problems with each other to resolve as well as collaboration to enjoy.

The present situation in anesthesiology is, naturally, of keen interest to the clinical anesthesiologist. Anesthesiology, as a relatively young specialty, has a core of activity somewhat less well defined than that of some older specialties. Also, it has always been a custom for anesthesiologists as individuals to pursue those aspects of medical care which may not be considered by all physicians as part of the central core of anesthesiological practice. For example, for many decades many anesthesiologists have concerned themselves with the application of regional anesthetic methods to the management of patients with severe, chronic pain associated with a variety of diseases including malignancies and vascular diseases.

Anesthesiologists can well be proud of their crucial contributions to the understanding of the mechanisms of pain and to the application of these principles to the care of patients. For a long time, many anesthesiologists have contributed to the therapeutic applications of endoscopy, particularly in the management of atelectasis following both surgical operation and the consequences of hypoventilation or drug intoxication.

Anesthesiologists have made significant and crucial contributions to the understanding of the principles of resuscitation of the newborn. A member of this specialty has proposed guidelines to the evaluation and treatment of the newborn infant in need of resuscitation, which have been adopted worldwide.[1] Anesthesiologists have contributed in an important way to the improvement of maternal and fetal mortality insofar as the effects of depressant drugs, anoxia and acidosis are concerned. Although much remains to be done in this field, anesthesiologists as a group can derive satisfaction from the beginnings of significant advances already achieved.

Since the beginning of the last decade there has been a concerted move of the anesthesiologist, both in Europe and in this country, toward participation or control of special units designed for the treatment of patients who are acutely and critically ill. The beginnings of this activity were found in the care of those patients suffering from respiratory failure in the last important epidemic of poliomyelitis in Northern Europe. The application of sound anesthetic principles of the management of the airway, the provision of effective controlled respiration, and the management of rehabilitation of these patients fell, in some instances by default, to the anesthesiologists, and in other instances by a recognition of their competence in these particular fields of activity.

The work of the anesthesiologist in the intensive care of patients or, if one wishes to consider it in its broadest aspects, in the management of acute medical and surgical illnesses, has become more and more interesting to many anesthesiologists throughout the civilized world.

This interesting period of the application of fundamental scientific knowledge to patient care has, unfortunately, also been a period of increasing shortage of well-qualified physicians attracted to anesthesiology, both in Europe and in the United States. In fact, so important did the problem of recruitment for the specialty become, that the Survey sponsored by the American Society of Anesthesiologists under the chairmanship of Doctor Robert D. Dripps indicated quite clearly that, unless medical students and young doctors of medicine can see the relevance of anesthesiology to direct patient care, there is serious danger that the unfavorable trend of recruitment may persist and become chronic. The Survey went on to recommend increasing participation by anesthesiologists in non-operating room activity as an aid to recruitment. This activity clearly would provide an important step forward toward improved patient care.[2]

These trends, coupled with the shortage of anesthesiologists in this country and in most of the world, created something of a dilemma. Even though the question of the shortage of anesthesiologists has been argued, one could

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come to some simplistic agreement on this matter by viewing the question more directly. If there are presently enough anesthesiologists, assuming all matters of management of the use of this time and of operating room space were corrected, to take care of all of the surgical anesthesia in the country, then these additional anesthesiologis to be recruited could conceivably care for these important and additional activities. It appears more likely, however, that the number of anesthesiologists would have to be approximately doubled now to provide for the surgical anesthetic care of patients which is basic and traditional to the specialty to be adequate.

In this connection it is interesting to read the Definition of the Anesthesiologist which appears in the Dictionary of Occupational Titles, Volume 1, Definitions of Titles, III Edition, U. S. Department of Labor.[3]

"ANESTHESIOLOGIST: Administers anesthetics to render patients insensible to pain during surgical, obstetrical, and other medical procedures. Examines patient to determine degree of surgical risk, and type of anesthesia and sedation to administer, and discusses findings with medical practitioner concerned with case. Position patient on operating table and administers local, intravenous, spinal-caudal, or other anesthetic according to prescribed medical standards. Institutes remedial measures to counteract adverse reactions or complications. Records type and amount of anesthetic and sedation administered and condition of patient before, during, and after anesthesia. May instruct medical students and other personnel in characteristics and methods of administering various types of anesthetics, signs and symptoms of reactions and complications, and emergency measures to employ."

This definition was provided by a committee of anesthesiologists under the supervision of the American Society of Anesthesiologists. If this definition is to be accepted, then it is clear that there are not enough anesthesiologists to provide for surgical anesthetic care, obstetrical anesthetic care, and the participation or control of the intensive care units and in the management of problems due to pain. There is a shortage and it is impressive and noticeable.

Because of the inability of the anesthesiologist to accomplish all of his missions and to follow all of his interests, there has necessarily been an effort on his part to divide himself and his labors in some reasonably logical way. Inevitably, the anesthesiologist attempts to do this by working where he believes his skills are particularly required and where he has a natural and overriding interest. Even casual observation of the activities of anesthesiologists who participate quite properly in the activities of the operating room and the intensive care unit, both in this country and in Europe, reveal an increasingly greater concern and a greater investment of self in the activities of the care of patients in the intensive care unit. In some instances, including the hospitals of the Armed Forces of the United States, it has been observed that the performance of traditional surgical and/or obstetrical anesthesia in operating rooms or delivery rooms has often been delegated to individuals of lesser degrees of medical training or has often become the province of the anesthetic nurse.

To describe this situation is to criticize it. This trend in activities, dictated in part by the shortage of trained anesthesiologists and in part by their natural interest in acute medical and surgical problems, poses a potential danger of a more subtle and important sort than has up to now been appreciated for this specialty.

However, to discuss a danger or a problem frankly is not to recommend that a practice be abandoned or radically changed. On the contrary, all these trends are healthy extensions of the knowledge of the anesthesiologist to the care of sick people who need his help because of a variety of illnesses. The danger is a long-term one and is manifested largely by the gradual loss of skill of anesthesiologists in the conduct of clinical anesthesia for surgical operations and obstetrical deliveries. This decline of skill is obviously not uniform but it is just as obviously real. There is the clear and potential danger also that some young physicians may be attracted into anesthesiology only because of the glamour and excitement they see in the intensive care areas without realizing that the strength, the roots, the knowledge, and the capacity to conduct this high quality care of the acutely ill is predicated upon sound education in fundamental surgical anesthesia and in the investment of a sufficient time of practice in this area to have become skillful technically and conceptually. There is already some indication that the giv-

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ing of surgical anesthesia in operating rooms is viewed as the business of anesthetic nurses under the "supervision" of anesthesiologists whose hearts are really in the intensive care unit.

To warn of the danger and the problem is not to condemn the extensions of practice but to remind anesthesiologists where their strengths are. Whatever the anesthesiologist does, including his work in intensive care areas, he must forever keep his mind, his heart, and his training in the surgical amphitheater whence all his skills and strengths arise. If the anesthesiologist maintains this original and fundamental skill, then his extended and derived skills will always be fresh, constantly renewed, and prepared for advances. If, on the contrary, he becomes a specialist only in the work of acute medical care in the intensive care unit he will become a minor and derived specialist of internal medicine. This possibility and spectre has unfortunate resemblances to that condition of intellectual servitude and personal indignity which was the lot of the anesthesiologist when he was a minor and derived specialist in surgery.

Anesthesiology is a viable, vital, scientific and clinical discipline. Its fate should be one of progress and integrity along all the lines of its interests and skills. It should not stumble into a dying role in medicine after it survived a period of languor and decline in surgery. Its independence and its vitality not only are important but will in turn attract more of the best people into this field. In the long view of things, both medical and surgical patients will be better treated if the anesthesiologist always remains true to his original professional strengths, in addition to applying them to new and exciting areas.

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