ANESTHESIA FOR THE PSYCHOTIC PATIENT

Gertrude L. Fife, R.N.
Cleveland

Several months ago, after having retired as director of a large university hospital anesthesia department, I was persuaded to go to the Cleveland State Hospital to administer the anesthesia for a series of operations for revascularization of the brain performed under the direction of Dr. Claude S. Beck.¹ Thirty-four operations were completed in ten weeks. Since then, the interest in the problem of anesthesia for the operation that led me to take on the assignment has been superseded by a compelling interest in what can and needs to be done for the institutionalized patient with psychosis. Therefore I have stayed on as “part-time” anesthetist, although I do not limit my activities to anesthesia and lend a hand in the operating room as other needs arise.

The public has been deluged with articles emphasizing the worst aspects of the care of patients in mental hospitals. Anesthetists and nurses in general have the impression that working in a mental hospital is fruitless and unsatisfactory because of the lack of facilities, alleged indifference of the management, and the little benefit that will derive to the patient. I would like to help dispel that impression, for without a change in this attitude the surgical care of the patient in a mental hospital cannot and will not be improved. While it is true that many patients in the State Hospital are permanently disabled (the same may be said of any hospital for the chronically physically ill patient), we must not forget that a large percentage, 60 to 80 per cent, of patients in mental hospitals do return to society, some cured and most at least able to care for themselves.

Organization of the Surgical Department

At the Cleveland State Hospital there is one air-conditioned, well equipped operating room for major surgery and one for minor surgery. The anesthesia equipment includes a modern Heidbrink gas machine, intratracheal equipment, and the usual accessory equipment of a well equipped anesthesia department.

The surgical staff consists of one surgeon and one resident surgeon who are at the hospital every day. Visiting surgeons are available for consultation and for the performance of special operations when it is necessary. A full-time graduate nurse is in charge of the operating rooms and is responsible for the care of equipment and the preparation and sterilization of supplies for the operating rooms and the central supply room. Three attendants are being trained to alternate as circulating nurses.

¹ Beck, C. S.: To be published.
The surgical department also provides occupational therapy for three patients. One cleans instruments, wraps packages for sterilization, and does routine work in the operating room. Another takes the surgeons’ dictation and types the operative notes. A third takes care of the equipment in the cast room, makes plaster bandages, keeps crutches in good condition, and assists in the application of splints.

Types of Operations

At this hospital, which has 2,500 patients, operations are performed three or four days a week. During the period from November 1, 1949, to June 1, 1950, 128 operations were performed including: thyroidectomy, cholecystectomy, nephrectomy, herniorrhaphy, hysterectomy (abdominal and vaginal), combined abdominoperineal resection, prostatectomy (suprapubic and transurethral), hemorrhoidectomy, repair of prolapsed rectum, and insertion of Smith-Peterson pin for fracture of the hip.

Condition of the Patient

Anesthesia for patients in a mental hospital differs in many respects from anesthesia for the surgical patient in a general hospital. The conditions for which operations are performed are the same, but the administration of anesthesia is often complicated by the presence of brain damage resulting from such diseases as cerebral arteriosclerosis, meningitis, encephalitis, and senile degeneration of the brain. Although the same disease complications may be encountered in the surgical patient in a general hospital, usually they have not produced mental deterioration. The effects of prolonged institutionalization and the presence of the psychosis also add to the adventure of anesthesia.

Because of the mental illness recognition of the physical condition requiring operation may be delayed, and making a diagnosis may be difficult. The psychotic patient may have pain but will not tell anyone about it. The condition may persist for days or weeks before it is recognized. A patient may be unable to describe his symptoms and to help the physician in making a diagnosis. If he is resistive, anesthesia may be required in order to make a satisfactory examination. Many tests that are valuable in the evaluation of a patient’s condition cannot be made because of his refusal to co-operate. As a result, many of the patients are poor operative risks.

Fears, suspicions, and severe mental depression that rob the patient of a desire to live make the operation all the more difficult. It may be considered that convulsions and severe respiratory and circulatory disturbances may be produced readily in such patients if subjected to operation. Therefore elective surgery is often delayed. As a consequence, the patient comes to the operating room, at a later date, in poorer physical condition.

Lack of exercise, fresh air, and the incentive to be active produces debility. Many patients are also severely undernourished, not because food is not available to them but because of their lack of desire to eat. It is not uncommon for a patient to refuse food until it becomes necessary to feed him by tube or intravenous infusions.

Untidy habits and poor personal hygiene, especially of the mouth, increase the possibility of operative as well as postoperative difficulties and complications.
Preoperative Preparation

Heavy premedication for the institutionalized patient is inadvisable and usually unnecessary, because elective procedures are rarely performed on agitated and violent patients. Since most of the patients are inactive, drugs must be administered with caution. Because the margin of safety is greatly decreased and recovery is delayed if the patient is severely depressed during the operation, underpremedication is preferable to overpremedication.

Lack of sufficient trained personnel also makes it imperative that the patient be conscious when he is returned to the ward. Morphine, gr. 1/6 to 1/8, and atropine, gr. 1/150, administered one-half hour before the patient is taken to the operating room, are the drugs given for premedication in most instances. Barbiturates cause too much depression during anesthesia, and recovery is delayed. Each patient is individually appraised, and the drugs and dosages are selected according to his needs. Greater control of premedication is possible in an institution than in a general hospital because, as a rule, there is a better opportunity to know and study the “total” patient.

Anesthesia Management

While a patient may know that he is to undergo an operation, he is rarely told the exact date. Normal routines are interrupted as little as possible. For example, a patient to undergo thyroidectomy was transferred to the Cleveland State Hospital from another institution. She was on the woman’s surgical division for several weeks in preparation for the operation and was allowed to attend the regular hospital dance for patients the night before the operation.

Most patients are transferred to the surgical division several days before operation. This gives them an opportunity to know the surgeon and the anesthetist, and as a result they are not among strangers when they come to the operating room.

A patient is never brought to the operating room until it is ready and preparations are made to put him on the table and start the administration of the anesthetic immediately. If the patient is from the woman’s surgical ward, which is adjacent to the operating room, she is allowed to walk to the operating room and climb up on the table by herself. Every attempt is made to make the procedure as uneventful as possible. We believe this has been a great factor in eliminating struggling and disturbance in the operating room.

All types of anesthetic agents are administered except cyclopropane. In selecting the anesthetic agent, the criteria are the same as those applied in a general hospital. For most major surgical procedures nitrous oxide-oxygen-ether is the combination of choice. Curare is given when indicated and has proved to be of value in providing the desired relaxation without the administration of relaxing doses of anesthetic agents that delay recovery. However, because of the poor physical condition of some of the patients, curare must be given with caution. I have never given more than an equivalent of 4 cc. of d-tubocurarine chloride for an entire operation, and generally 2 to 3 cc. is adequate.

Pentothal sodium in 5 per cent solution is administered for minor surgical procedures and for operations attended by explosion hazards. It is a valuable agent in an institution where often anesthesia must be
administered for very minor procedures because of the patient's inability to co-operate. Also because of the patient's inability to co-operate, local anesthesia is rarely used, and spinal anesthesia cannot be given unless the patient receives heavy premedication, a practice that we have found inadvisable.

Pentothal sodium is used for induction of anesthesia if the patient appears to be unduly disturbed. One patient scheduled for herniorrhaphy was so distressed that he could not be put on a cart without having symptoms of incipient convulsions. By giving him a small dose of pentothal sodium, we were able to take him to the operating room without difficulty.

These patients must be approached in a quiet and unhurried but firm manner. The confidence of the patient is best obtained by treating him as a normal individual. I have found that these patients do not like to be touched. Several times when I placed my hand on the forehead of a patient going to sleep, I felt almost instantly the muscles of his body become tense. Many patients will not pay attention to what is said to them, and consequently the anesthetist must depend primarily on her tone of voice for control. They usually will respond to kindness and will do as they are told if they are not hurried or frightened.

As a rule, induction of anesthesia is not difficult. Rarely does a patient struggle while going to sleep. No restraint is used except for a strap placed loosely over the thighs.

When consideration and kindness and only the very minimum of restraint are used in the handling of the patient, very small amounts of anesthetic agents are required to obtain surgical anesthesia. The patients have little resistance to anesthesia because of their general debility and inactivity. However, unskilful management and an insensitive psychologic approach can create such metabolic disturbances, with an increase in blood pressure from the outpouring of epinephrine, that large amounts of the agents are required for induction. The attendant depression, once the effect of the epinephrine wears off, makes it difficult to prevent overanesthetization, respiratory and circulatory depression, and shock.

One of the greatest dangers during anesthesia is the presence of foreign bodies in the mouth and undigested food in the stomach. It is difficult to get a patient to open his mouth for inspection, and even though he does, objects may be hidden in the cheek. Although a patient is not supposed to have food the morning of operation, he may take it from the tray of another patient, or another patient may give it to him. For this reason suction must always be readily available.

Postoperative Course

Postoperatively, the patients require few sedatives and become active in a relatively short time. Certain patients after herniorrhaphy have moved with little assistance from the cart to the bed without showing discomfort. As a rule, the patients are contented on the surgical ward and seem to appreciate the individual attention given them.

Penicillin is given almost routinely postoperatively because it is often difficult to prevent the patient from handling or even removing the dressing. Probably as a result of the administration of penicillin and the early ambulation of the patients, pneumonia is a rare postoperative complication.
DENTAL ANESTHESIA

Some of the patients having teeth removed will not co-operate if local anesthesia is used, and general anesthesia is necessary. One day a week patients requiring general anesthesia for the removal of teeth are operated on in the institution's dental department before the general surgical schedule is started.

We have two dental interns. One intern performs the extraction under the supervision of the dentist in charge of the department or a consultant, while the other gives the anesthetic under the supervision of the anesthetist. A full-time graduate nurse is also employed in the department.

When general anesthesia is necessary, breakfast is withheld, and usually nembutal, gr. 1 1/2, is administered by mouth and atropine, gr. 1/150, hypodermically in order that the patient may be brought to the dental department without difficulty.

Formerly, nitrous oxide-oxygen with a small amount of ether was given on the assumption that this with the premedication would provide sufficient anesthesia. However, when the mask was applied to the patient's face, he would become unco-operative, and in several instances we had patients who put up a violent struggle. Thus, to protect the patient and ourselves, restraint had to be applied before anesthesia was administered. Since the use of restraint is not only undesirable but detrimental to the patient and a hazard in the administration of anesthesia, a new technic was developed that has proved very satisfactory.

The patient is placed in the dental chair, and if possible the dentist examines the mouth. No restraint whatsoever is used. The patient is then told that we are going to "stick a needle in his vein." He is familiar with this procedure because all the patients have blood studies and are given medication intravenously. Some patients will even point out the easiest vein to get into. Pentothal sodium, 5 per cent solution, is then given until the patient is barely able to talk. The average dose is 3 cc., and never more than 5 cc. is given. The mouth gag is then inserted, and the administration of nitrous oxide-oxygen started. No time can be wasted in inserting the mouth gag and in beginning the administration of nitrous oxide and oxygen; otherwise the value of the administration of pentothal sodium will be lost. If it is difficult to maintain anesthesia with nitrous oxide-oxygen, especially for a difficult extraction, ether is added to the mixture. Cyanosis is never allowed to develop.

The patient awakens almost immediately after the operation is over. He is allowed to walk out into the hall and sit or lie on a bench until he is fully awake and the dentist has had an opportunity to check for bleeding. Within fifteen minutes the patient, with an attendant, is able to walk back to the ward.

In dental extractions, as in general surgery, there is always the danger of foreign bodies in the mouth and undigested food in the stomach. On inspection of the mouth of one patient, the dentist found a wad of chewing tobacco as large as a walnut. Consequently, every precaution must be taken to prevent accidents. Suction is always available. Because the throat reflexes should not be abolished until the dentist has had an opportunity to examine the patient's mouth, only enough pentothal sodium is given to make it difficult for the patient to talk.

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the events preceding the “Nightingale period” are depicted in considerable detail. Social, economic, and political backgrounds as well as medical developments are integrated. Various units are followed by series of study questions and references. Footnote references are made to data referred to in the text. Indexed.

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SUMMARY
The administration of anesthesia for institutionalized patients with psychoses is attended by a variety of problems that are not encountered in a general hospital. Brain damage is frequently present, and cyanosis must not be allowed to develop. The patients are often poor operative risks because of the late recognition of the condition requiring operation, the difficulty of making a diagnosis, the patient’s debility and lack of desire to live, and poor personal hygiene, especially of the mouth.

Pentothal sodium and curare are particularly valuable anesthetic agents in a mental hospital. Pentothal sodium is frequently used for anesthesia for short operative procedures and examinations and for induction for dental extractions. With the use of curare there is assurance that the patient will be awake when he is returned to the ward.

The effect of kindness and the proper psychologic approach on the institutionalized patient having to undergo an operation is dramatic. The anesthetist or the nurse must be sympathetic, kind, and patient. The need for increased numbers of competent personnel in the mental hospital is very great. The work is interesting, challenging, and offers immeasurable satisfaction in achievement.

OPINION REVIEW
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much of the second stage and the most satisfactory delivery. Much of our success is due to our trained, clever, nurse anesthetists who not only watch the patients during analgesia, but who during the second stage give inhalation anesthesia at first intermittently with pains, with a gradual increase to complete surgical anesthesia for deliveries.

Control of pain in childbirth without ill effects on the baby is a challenge that today faces every anesthetist who attends a mother’s delivery. Of course, the danger to the child is acute when these brain-drugging agents are used in dosage sufficient to relieve the mother of her suffering. Yet, the nurse anesthetist is expected not only to relieve pain but completely to control the anesthetic agent throughout the procedure. Those entrusted with the safety of delivery of the baby must accept the challenge and protect him from hypoxia. She also is able to cope with complicated deliveries such as podalic version and breech presentation where the plane of anesthesia has to be deepened. She will know the condition of the patient every second of the time remembering, “Eternal vigilance is the price of safety,” and realizing that it involves two lives, that of mother and infant.

The obstetrician of today is well aware of the importance of a well trained anesthetist. In turn the anesthetist has recognized the challenge of obstetric anesthesia. — SISTER RUDOLPHA, R.N., Springfield, Ill.