NERVE DESTRUCTION FOLLOWING EXTRAVASCULAR INJECTION OF PENTOTHAL SODIUM

This case is reported to illustrate the effect of pentothal sodium when injected subcutaneously. The concentration of the solution used is not known.

A male adult received pentothal sodium intravenously in January 1944. The patient stated that almost a syringe-full of the anesthetic solution was injected subcutaneously. Subsequently, the entire area of the elbow became inflamed and swollen. Treatment was required for two months before this reaction subsided. According to the patient, treatment included wet packs and whirlpool baths. Necrosis of the skin did not develop, and there was no cutaneous scar.

The findings reported at this time were noted approximately ten months after the injection. The area of existing anesthesia is innervated by the following nerves: the lateral antibrachial cutaneous branch of the musculocutaneous; the dorsal antibrachial cutaneous branch of the radial nerve (external cutaneous of the musculospiral nerve), and the superficial branch of the radial nerve. Each of these nerves passes through the antecubital fossa, and would be bathed in a solution injected into the antecubital fossa. Pain sensitivity was tested by pin prick; touch by a wisp of cotton; cold by a piece of ice, and heat by a warm glass. All of these senses were completely absent in the center of the involved skin area. Toward the periphery of the denervated area there was a gradual increase in appreciation of these stimuli.

Deep pain sensation was also tested. Forceful pinching of the muscles through the anesthetic skin was painless; deep pressure on the metacarpal bone underlying the anesthetized skin was painless, and compression of the web between the index and second finger elicited very slight tenderness. When these same tests for deep pain were carried out on the opposite arm, definite and prompt painful response resulted. In this instance deep pain sense was lost in the same region as cutaneous pain.

Motor paralysis was not noted; however, the patient's grip was much weaker in the affected arm. The pilomotor apparatus was not functioning. Cutis anserina (goose flesh) could be induced over the body and other arm, but not in the affected area. Apparently some scar tissue had formed in the subcutaneous tissue of the elbow. The patient experienced a stretching sensation when the elbow was fully extended. Some tenderness of the tendon of the biceps brachii still persists.

CAPT. SAMUEL L. LIEBERMAN,
Medical Corps,
Army of the United States

THE VIEWS OF ANESTHESIOLOGY

March 18, 1946

Dr. P. R. Minahan
Green Bay, Wisconsin

Dear Doctor Minahan: After reading your "President's Page" certain thoughts came to mind. Would it be well for the State Society to insist on certain rights of the profession?

I have put some thoughts on the enclosed pages, related to the matter of anesthesia. Would it not be a good follow up to your expressed thoughts to—Pass a resolution in the House of Delegates: (1) condemning dominance and dictation of the practice of anesthesia by hospital management, or (2) condemning the exploitation of anesthesia through charging more for service than is spent for that purpose, or (3) recommending that the staff of each hospital be allowed to determine how the service of anesthesia shall be accomplished.

Perhaps it is not my concern but the specific example of what you imply in your "page" is so glaring regarding anesthesia in our state that it seems worth considering as a beginning in fighting abuses.

Sincerely,

(Signed) RALPH WATERS, M.D.,
Department of Anesthesia,
University of Wisconsin
Medical School

RMW:vmp

P. S. Just as I was signing this, a letter came from an anesthetist in another state, but it so well illustrates what is happening that I'd like to quote from it. This man left a good practice in anesthesia to enter military service four years ago. In service, he met two surgeons from a town in another state and they agreed among themselves that he ought to join them when they all got out of service. He wrote to me some weeks ago that he had his license fixed up in the other state and was moving his family at once. Now he writes:

"I thought I had foreseen everything before I went out there . . . but after arrival found I was unable to get an appointment to the anesthesia staff of the only good hospital in town. . . . The sister in charge refused me a place on the staff since that would mean her anesthetic nurses would have less to do and therefore the hospital would make less money in their practice of medicine. The surgeons at the Clinic were unable to get her to change her decision. They are handicapped, as unless they obey orders, they soon find they are unable to get their patients admitted. There are two other small second rate hospitals there. The surgeons urged me to stick around for a few months till the situation would be corrected, but I can't live on climate alone. So that's that—just another trick that fate plays on one."

Is it right for us to permit hospitals thus to dictate to us how we shall practice?

Among the many anomalous situations which exist in medical practice that of the specialty of anesthesiology is notable in our state. Numerous doctors are returning from military service with a new appreciation of the importance of the service which can be offered by the anesthesiologist. Some of these are surgeons who, in military service, have had the help of physicians especially trained in anesthesia and are therefore accustomed to depend upon them. Others are former medical officers who received training and experience in anesthesiology while on active duty. And what prospect of applying their knowledge and skill in practicing anesthesiology in the hospitals of our state do these men encounter?

Among the staff members of nearly all our institutions are surgeons who appreciate and would welcome the help of the anesthesiologist. It is regrettable that no such cordiality is shown by the management of many hospitals. Institutions which actually forbid the administration of anesthetics by physicians are not uncommon. Others while not barring the doctor entirely, discourage him in the practice by charging the patient for this service whether the physician or a hospital employee actually officiates.

This corporate practice of medicine by hospital managements is a matter which deserves consideration by our Society at this time. Not only do we owe consideration to our fellow physicians who desire to practice anesthesiology, but it is also our responsibility to see that the best possible service is made available to our patients.

From the viewpoint of the hospital administration, it is desirable to increase the income of the institution by all legitimate means. Have the physicians who constitute the staff of our hospitals failed in making certain things clear to hospital management; first, that there is a service in modern anesthesiology which can only be rendered by especially competent physicians; second, that such service cannot be rendered competently or legitimately by technicians; and third, that economic exploitation of such service by the hospital is unfair to the physician who wishes to be an anesthetist, to the surgeon who desires his help, and to the patient whose welfare should be the interest of us all?

Hospitals, like doctors, exist to serve patients as safely and efficiently as possible. It may be the duty of the professional staff of every hospital to explain to the management of the institution in which they work the ethical implications of the customs in current practice. But is it not likely that a resolution passed by our House of Delegates might lend strength to their argument? Long ago it has been said, "The medical profession has the protection of court decisions holding that the license to practice is a 'property right' under the constitution. Is the profession prepared to sacrifice this protection by delegating the disposal of this 'property right' to the

'supervised' or 'corporation' practice of medicine? 'Supervised' technician anesthesia is the first big inroad of socialized medicine on the economic level of technician pay and standards. It also means the 'corporation' practice of medicine by hospital associations under lay control. . . . If the 'property right' to practice medicine is not upheld . . . and safeguarded by the profession, the socialization and corporation practice of radiology, pathology, and anesthesia will be the future fate staring all other specialists, including surgeons, in the face."

Perhaps we, the physicians of Wisconsin, have failed to appreciate certain unfortunate and dangerous practices which have grown up in our midst. It may be that an analysis at this time will reveal ways in which we can guarantee better service to our patients. At the same time we may help to solve some of the problems of rehabilitation and readjustment to peacetime practice which now confronts many members of our Society. A situation which permits hospital management to discourage or even prevent physicians from practicing anesthesiology is one that demands the attention of the Society.

—Reprinted from Section on Letters to the Editor, from the June 1946 issue of *The Wisconsin Medical Journal.*

CORRESPONDENCE

To the Editor:

Doctor Martinson's difficulties in marking rubber materials as described in the July 1946 issue of ANESTHESIOLOGY, Current Comment, will be solved, I believe, if he will follow the method used at this institution. It is simple and permanent, and articles marked four years ago are as legible as on the first day.

1. Cleanse the rubber with ether or carbon tetrachloride to remove all grease.
2. Prepare a solution of 20 per cent silver nitrate.
3. With a *clean* pen mark or print the desired marking using a slight excess of the solution of silver nitrate.
4. Place the articles marked with the silver nitrate solution beneath a strong, direct light such as a desk lamp. This "develops" the writing. Leave until dry.
5. Wash with cold water to "fix" the marking.
6. Shake excess water and dry.

Very truly yours,
BERNARD STODSKY, M.D.,
Director Anesthesiology,
Michael Reese Hospital,
Chicago 16, Ill.

MEETING OF THE AMERICAN SOCIETY OF ANESTHESIOLOGISTS, INC.

EINHORN AUDITORIUM, LENOX HILL HOSPITAL

Park Avenue at 76th Street, New York, N. Y.

Thursday, December 12, 1946

Business Session: 8:00 P.M. Scientific Session, 8:30 P.M.

1. Address of Retiring President. Dr. John S. Lundy. 10 minutes.
2. Address of Incoming President. Dr. Edward B. Tuohy. 10 minutes.
3. "Intraspinal Segmental Anesthesia." Meyer Saklad, M.D., Elihu Saklad, M.D., Priscilla Sellman, M.D., Rhode Island Hospital. 30 minutes.
4. "The Neuro-physicological Basis of Muscular Relaxation." Robert D. Dripps, M.D., University of Pennsylvania Hospital. 30 minutes.

Discussion.