

This position the supporters of the above resolution desire to perpetuate, and it must be strenuously opposed.

We take our stand on the principle of equal status under the Nursing Acts for Mental Nurses, and not government by men of these State-paid workers in an occupation composed largely of women.

This is an important public question, and the demand of "the Mental Hospital and Institutional Workers Union" is one which no Government, and least of all a Labour Government, can support with justice to mental nurses, or to the mentally sick. We call upon the public and the Press to help to prevent such injustice.

SPINAL ANESTHESIA.*

By Walter D. Ludlum, M.D.

[ABRIDGED.]

Spinal anesthesia is not a new form of anesthesia, having been discovered forty-five years ago, and being used extensively during the last thirty years. Yet only lately has the medical profession at large been convinced that this method is no longer in the experimental stage and that its benefits are open to all. A much-improved technic, new preparations of the anesthetic drug, and a better understanding of the physiologic reactions to its use, have made it a safe and thoroughly satisfactory anesthesia and have led to its recent general acceptance throughout this country and the world. As it is now so commonly used, as the nurse's relation to it is so intimate and important, she should thoroughly understand the theory upon which it is based, the technic now used, and the precautions for its successful accomplishment.

If an afferent (sensory) nerve is exposed, either at its termination or along its course, to a sufficient concentration of an anesthetic agent such as novocain, its power of transmitting sensation will be lost. To produce a local anesthesia the drug is injected at the termination of the nerves. To produce a regional anesthesia the drug is injected at some point along the course of a sensory nerve. Spinal anesthesia is a special form of regional anesthesia. The anesthetic agent is introduced into the subarachnoid space, the space between the spinal cord and its membranes which contains the spinal fluid. Here it mixes with the spinal fluid and bathes the sensory nerves as they join the spinal cord. The nerves in contact with a sufficient concentration of the drug become blocked and the parts of the body which they supply lose all sensation. The drug does not in any way directly affect the cerebrum, so consciousness is not lost. Motor nerves are less easily blocked by the drug than sensory nerves. Hence the power to move certain parts of the body may remain after they become insensitive.

The technics for inducing this anesthesia are many. In fact no two anesthetists induce it in precisely the same way. The principles, however, do not vary. The patient either sits on the operating table with his back well arched toward the anesthetist who stands

behind him, or he lies on his side with his arms clasping his knees in the usual lumbar puncture position. The anesthetist prepares an aseptic field covering the middle and lower back, and protects it with steril drapes. He has on a sterile tray the following paraphernalia: two syringes, 2 cc. and 10 cc., of a type to fit one lumbar puncture needle of fine gauge (19), one hypo needle, one larger needle for aspirating and mixing solutions, an ampule of the anesthetic drug, and a 2 cc. ampule of novocain for skin anesthesia, preliminary to the lumbar puncture.

The anesthetist determines the space between the spinous processes of the vertebrae suitable for this anesthesia and, with novocain in the 2 cc. syringe, makes a skin wheal. The lumbar puncture needle is introduced at this site until it punctures the membranes of the cord and enters the subarachnoid space. The stylet is withdrawn. Spinal fluid should drop freely. It is permitted to drop into an ampule containing the crystalline drug, or else it is collected in the 10 cc. syringe and mixed with a special preparation of the drug in solution.

The anesthetic drug is ordinarily introduced into the subarachnoid space low in the spinal column—usually in the lumbar region. How far it progresses toward the head depends upon several factors—the height of the spinal puncture, the dose of the drug, the amount of spinal fluid removed, the force of injection, the position of the patient.

Inhalation anesthesia should be eliminated and spinal anesthesia used in any case of pulmonary tuberculosis, healed or active, which requires an operation to which this method is applicable. Similarly, in the aged or debilitated, in those suffering from cardiac, nephritic or endocrine diseases, spinal anesthesia is preferred because it causes far less metabolic disturbance than even the least toxic of the inhalation anesthetics. In emergency operations, where the patient comes to the operating room with a full stomach, this anesthesia is particularly desirable because it is unlikely to cause nausea and vomiting, and if they do occur they do not interfere with the anesthesia. The co-operation of the patient during an operation is often a considerable aid and can be had with this anesthesia. (A cough reveals the sac of a hernia during a herniotomy, etc.)

Such special preparation of the patient as this anesthesia requires is largely psychic. In this preparation the nurse can be of unusual assistance to the surgeon. The anesthesia is commonly enough used that it may be treated as in no way novel. Nevertheless, many patients will make inquiries about it. A well-informed and tactful nurse can allay apprehension by easily comprehended replies. If he inquires, the patient is told that there is no sensation whatsoever in the operative area. His eyes are covered during the operation, he can converse with those about him, can drink if he wishes and be entirely at his ease. Soon after his return to bed, a light meal may be eaten. The distress of nausea and vomiting, restlessness and excessive perspiration, which follow general anesthesia, will be eliminated. Fear of the lumbar puncture is easily dispelled by explaining that there is the merest needle prick. Such conversation reassures the patient who

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