SOMNIFAINE NARCOSIS.

AN INTRODUCTORY OUTLINE FOR NURSES. *

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Attempts to deal with various mental disorders by prolonged narcosis have been made for the past thirty years, and many methods have been advocated. Some of these have proved successful despite their danger, but of all the sleep-producing agents so far used, somnifaine has retained pride of place.

Somnifaine.

Somnifaine is a mixture of the diethylamine salts of diethyl and allyl isopropyl barbituric acids in an alcohol-glycerol-water solution. It is administered by intramuscular injection of 2 c.c. in the buttock.

While there are many modifications in use in the technique of somnifaine narcosis, there are, generally speaking, two ways of using the drug :—

(1) A rapid method, in which the patient is given two daily injections of somnifaine and its sedative effect is supplemented with the oral administration of paraldehyde in order to bring about a practically continuous narcosis for fourteen days.

(2) Gradual method. A method which, by a slow induction relegates sleep to second place, and aims at producing a gradual barbituric intoxication in the patient.

Neither method is without danger, and should not be undertaken, except by skilful nurses in a properly-equipped hospital under the direction of a psychiatrist.

The cases most suitable for treatment by prolonged narcosis are those of mania, melancholia and the anxiety states. It may find effective use in the treatment of certain alcoholic states and states of schizophrenic excitement; but as a treatment for schizophrenic cases generally it is much inferior to insulin and cardiazol.

Technique.

General nursing measures apply to both methods which differ only in the giving of the injection.

Rapid Method.—The patient receives the injection of somnifaine at 9 a.m., and at 4 p.m., or according to the instructions of the physician. A third injection of somnifaine may be given at 1 a.m. Wakefulness or restlessness between injections is controlled by paraldehyde. This latter drug may be given per rectum or by deep intramuscular injection. An hour before each injection the patient is roused for attention to the bowels and bladder and for the giving of food.

For three days after the cessation of somnifaine narcosis the patient is intoxicated and should remain in bed, while the physician institutes some active psychotherapy. Later he is encouraged in an increasing amount of exercise and occupational therapy.

The patient should not be visited by relatives during and for at least three days after treatment. The patient should be nursed in a single room which is rendered as quiet as possible and darkened during the day. Each patient should have a special nurse and should on no account be left unobserved.

Gradual Method.—On each of the first three days 2 c.c. of somnifaine is given at 2 p.m., after the patient's dinner. On the fourth day, in addition to the injection given at 2 p.m., another is given at 7 p.m. after tea. These injections are repeated on the fifth, sixth and seventh days. If such administration of somnifaine is insufficient to produce a more or less continuous narcosis, on the eighth day a third injection is given at 10 a.m., and these three injections are continued from the eighth to the fourteenth day. Should this be sufficient somnifaine to produce narcosis and should there be no complications, these same three doses are continued daily until the twenty-first day, when the drug is gradually withdrawn and the patient allowed out of bed a week later.

If, however, at the fourteenth day the patient is still resistant to the drug a further injection will be necessary, and I have found it practicable to give an injection of somnifaine at 8 p.m., 12 midday, 4 p.m. and 8 p.m., and continue this until symptoms of intoxication are manifest. Paraldehyde or other cortical sedative may be given to control restlessness.

Reactions to Somnifaine.

Reactions.—Patients react differently to somnifaine narcosis. This difference is due to personal idiosyncrasy to the drug, personality make-up and the mental illness from which each may be suffering. Some patients are limp and drowsy; others are excitable and restless. Practically all are without memory for the whole period of the treatment. Sleep is quiet and prolonged in some and broken in others. Signs of intoxication such as mild ataxia, confusion, dysphagia, dysarthria and nystagmus and diplopia are usually observed towards the latter part of the treatment. These are to be expected, and if they remain the only complications the course of injections need not be interrupted.

Amount of Sleep.—The amount of sleep produced by somnifaine varies widely with different patients; but those whose sleep is prolonged seem to do no better in the long run than those who are more or less wakeful. The benefit of the treatment appears to be in the "protective amnesia" (loss of memory) which somnifaine, on account of its prolonged action, brings about.

Nursing.

The patient should be raised on pillows. He should not be allowed to sleep in one position for more than six hours. The back and buttocks need careful attention.

Injections.—The strictest aseptic technique must be observed in giving the intramuscular injections. These should be given deeply with a fine intramuscular needle at least three inches long, otherwise a painful abscess may form.

Feeding.—Feeding is most important. *The patient must always be sat upright when taking food or drink.* Solids and semi-solids may be spoonfed to the patient; but it is most essential to give adequate fluids.

Patients should take from 60 to 100 oz. of fluid in the 24 hours. Milk, cocoa, Ovaltine, egg flips and lemonade with Glucose D added should be given in small frequent feeds. The amounts of fluid taken and voided in the 24 hours should be charted. The patient should put on weight during the treatment.

Temperature, etc.—The temperature, pulse, respiration and blood pressure must be charted every four hours.

Bedpans should not be used. The patient should be assisted to a commode when necessary.

Evacuations.—No patient should be allowed to go more than 24 hours without an evacuation of the bowels. A routine enema every second day is advisable.

Urine.—The measurement and testing of the urine is of the utmost importance. The quantity passed must be recorded. At first there may be slight suppression; later the patient usually shows slight diuresis. A tendency to retention is to be expected late in the treatment. Twice daily the urine must be tested for (*a*) albumen and (*b*) acetone and diacetic acid. Catheterisation is to be avoided if possible.

General.—The patient must be kept as much as possible at an even temperature. Patients undergoing narcosis

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