

SYNERGISTIC ANAESTHESIA.

AS USED IN THE NORTH CHICAGO HOSPITAL

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(The following article is published on request of a nurse who was embarrassed to find herself unfamiliar with newer methods of anaesthesia.—Ed. A.J.N.)

Nurses are familiar with the symptoms of post-operative discomfort which result from acidosis and traumatic shock. Following all ether anaesthesia, acetone bodies are found in the urine. It is said by some surgeons that six per cent. of the laparotomies show acetone for the first twenty-four hours after operation.

Dr. J. T. Gwathmey, of New York City, contributed to the subject of Synergistic Anaesthesia in 1920-1921 a number of articles which were published in the *Journal of the American Medical Association*.

Dr. Joseph C. Beck, of the North Chicago Hospital, a noted Oto Laryngologist, has been using the following method for a number of months with great success.

The drugs used are:—Morphine for adults, paregoric for children, in lieu of morphine; Magnesium Sulphate, 25 per cent. solution; Ether; Olive Oil; Paraldehyde.

The technique is as follows:—

Two hours before the patient is to be operated upon—after preparing skin with two per cent. Iodine solution, give hypodermic of sterile Magnesium Sulphate c. c. 11, plus Morphine Sulphate gr. $\frac{1}{2}$. Repeat every half hour until three doses have been given. Then give, per rectum: Olive Oil, aa. drachm iii; paraldehyde, drachm iii; Ether, drachm iss.

The hypodermics are given in the buttocks as a rule and rarely in the deltoid. If the patient is a child, paregoric minims V drachm iss, is given by mouth in lieu of morphine. One-half hour later give, per rectum; Magnesium Sulphate, 1 c. c.; Ether drachm iss; Olive Oil, drachm iss.

Surgical anaesthesia is reached in from four to six hours. The patient can be aroused after this anaesthetic and will carry on a conversation but will not remember it.

No post-operative vomiting occurs, the patient has no gas pains and sleeps from four to twelve hours. Occasionally it is necessary to resort to an accessory anaesthetic of ether inhalation or vapor method and apothecene 2 per cent. per hypodermic.

The operations performed at this hospital under synergistic anaesthesia are tonsilectomies, sub-mucus resections of nasal septum, radical

antrum and frontal sinuses, mastoidectomy, suspension laryngoscopy, laryngectomy, excision of upper jaw, thyroidectomy, trephine of skull, and decompression operation.

The technique used in some hospitals, however, consists of a preliminary alkaline treatment of Sodium Bicarbonate and lactose for several days before operation, in order to have the patient thoroughly saturated with the carbonate. Immediate pre-operation treatment is essentially that of Gwathmey, which consists of a hypodermoclysis of a 4 per cent. chemically pure and sterile solution of magnesium sulphate given at fifteen-minute intervals for two or three doses, starting one and one-quarter hours before operation, and morphine sulphate $\frac{1}{10}$ to $\frac{1}{8}$ gr. in 1.5 c. c. of a 25 per cent. chemically pure and sterile solution of the magnesium sulphate given at fifteen-minute intervals for two or three doses, starting one and one-quarter hours before operation. Gwathmey has used as much as 400 c. c. in hypodermoclysis and has given the morphine in from 1 to 2 c. c. solution.

The patient is always kept in a darkened quiet place and is very gently removed to the anaesthetizing room where the synergistic anaesthesia of ether by drop method is commenced, if it is necessary to administer same. The patient is practically in a state of analgesia and the excitement stage is nil. The pulse is usually slow and little faster in the second stage, retiring to a lower rate during the operation.

Successful anaesthesia of this type calls for the utmost precision in carrying out orders, and the most careful observation on the part of the nurses entrusted with the care of these patients.—*American Journal of Nursing*.

THE PREVENTION OF DISEASE.

Dr. Rae, Tuberculosis Medical Officer for Aberdeen, spoke last week on the above subject at the annual general meeting of the Udney and Forfar District Nursing Association.

Dr. Rae treated his subject under two heads—general measures of ventilation and the prevention of special diseases. The most valuable method of preventing a number of diseases was, he said, proper ventilation. Out of 1,500 houses inspected during a night in September last in Halifax, only 450 had open bedroom windows, just about one-third. People spent something like one-third of their lives in bed, and if these figures were typical of other places, two-thirds of the population spent one-third of their lives in a foul atmosphere, and that, too, when they were resting, and should be regaining strength for the succeeding day's work.

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