

Morphine is also strongly indicated before local anesthesia, and spinal analgesia, as it is in a certain measure an antidote to cocaine and allied drugs.

Atropine may be used as a preliminary when chloroform or ethyl chloride is to be used, as it maintains respiration and prevents profuse salivation, nausea, vomiting.

The latest and best development in pulmonary anesthetics is the use of oxygen and nitrous oxide gas, supplemented, if necessary, by small amounts of ether and chloroform.

There are several apparatus in the market for this administration. It has been found that eighty per cent. of all surgical cases can be anesthetised by this combination.

**Rectal Anesthesia:**—After much experimenting with this method of narcosis, Dr. Walter A. Sutton, of Kansas City, perfected a system when he was interne in Roosevelt Hospital. The essential points are: (1) A mercurial manometer to prevent too great pressure within the colon, (2) A generator for the accurate admixture of oxygen and ether, (3) Two separate tubes, one for conveying the vapor into the colon, and one for withdrawing excess vapor, and also for trapping excreta. The whole apparatus is so arranged that it is controlled by the anesthetist, who sits at the head of the table.

Definite intestinal lesions are said to be the only contraindication to this method.

The bowel is cleansed by a castor oil purgative at night, followed in the morning by 3 or 4 high soap enemas, given one and a half hours apart, until the fluid from the rectum returns clear.

**Spinal Analgesia:**—This method, although in use in selected cases, will never supplant pulmonary anesthetics.

By preliminary medication with morphine, nervousness, physical and psychical pain, nausea, headache, etc., are in a measure overcome. The points in its favor are, that the patient assists the operator by coughing when necessary, and that the service of an assistant may be dispensed with, which is particularly applicable in emergency, naval and military surgery.

With regard to the use of the ordinary anesthetics, chloroform is contraindicated as a preliminary anesthetic when the psychic element is present, then it should be given as a sequence to ether.

Ethyl chloride is particularly useful for alcoholics, athletes and the obese, although not so safe as nitrous oxide gas.

He pleads for special anesthetists to be attached to every hospital, and deplors the fact that internes and even nurses are allowed to administer anesthetics without being under the direction of experts.

S. J.