

causes active expiration at the onset of anaesthesia. Careful observation of abdominal movements makes it clear that completely 'passive' expiration does not as a rule take place until considerable relaxation has been produced. It is not difficult to imagine the force of expiration corresponding with any particular degree of visible expiratory effort. . . . As a patient goes into a state of 'shock' changes take place which simulate in many ways the changes which occur with deepening anaesthesia. A sudden considerable haemorrhage will lower the plane of anaesthesia although no increased quantity of anaesthetic agent has been administered. In these circumstances expiratory force will become weaker and the E.P.T. may be used as a means of assessing the patient's debilitation. . . . The inexperienced anaesthetist will find the E.P.T. of particular value in cases where the usual signs of anaesthesia are not readily discernible." 7 references.

J. C. M. C.

STERN, MARVIN; PAPPER, E. M.; BUEDING, ERNEST, AND ROVENSTINE, E. A.: *The Effects of Anesthesia on Glucose Tolerance in Man*. *J. Pharmacol. & Exper. Therap.* 84: 157-159 (June) 1945.

"The stimulating effect of ether on glycogenolysis in muscle and liver is well established. Other anesthetic agents, pentothal, cyclopropane and procaine are considered to have little effect on carbohydrate metabolism since a significant variation in the fasting blood sugar was not noted during or after their administration. An investigation of carbohydrate metabolism during acute alcoholism in man revealed a markedly reduced blood sugar tolerance. To determine whether this phenomenon resulted from the specific action of alcohol or was due to anesthesia, the blood sugar tolerance

in the same individuals was determined during other circumstances. Each subject was studied in the resting state without anesthesia and during surgical anesthesia with an intravenous barbitalurate (pentothal), during inhalation anesthesia (cyclopropane) and during spinal anesthesia (procaine). Four volunteer normal adult males, who had been admitted in an acute alcoholic episode, served as subjects. All had completely recovered, were clear mentally and had no evidence of nutritional deficiency or other physical illness. Each subject received all of the anesthetic agents used but not in any particular order. The order of testing was carefully altered in each series and between every test there was an interval of at least seven days. No preanesthetic medication was given at any time. . . . Blood sugar tolerance was decreased during cyclopropane, pentothal sodium and procaine (spinal) anesthesia in each test. In contrast to anesthesia with pentothal and procaine, cyclopropane produces a slight elevation in blood sugar. This together with a rise in blood pyruvate might indicate that this anesthetic has an effect analogous to ether in stimulating glycogenolysis in liver and muscle. It should be noted particularly that cortical or brain stem depression alone cannot account for the decreased blood sugar tolerance since it was observed with spinal anesthesia at a high level. The same phenomenon was observed with alcohol anesthesia indicating that a general depression of carbohydrate metabolism takes place during anesthesia." 3 references.

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NICHOLS, T. R.: *Inhalation Anaesthesia for Tonsillectomy*. *Canad. M. A. J.* 53: 378-379 (Oct.) 1945.

"The main difficulty in anaesthesia for tonsillectomy arises from the necessity for the anaesthetic agent to pass