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Anesthesia

MALIGNANT HYPERTYREXIA Idiopathic explosive malignant hyperthermia, which occurs after anesthesia is administered, is a syndrome of increasing prevalence. It is a separate entity from the "postoperative heatstroke" reported in the days prior to temperature and humidity control of operating rooms. Reviews of 40 cases from the literature and the authors' own experience reveal a 73 per cent mortality in an otherwise healthy and young (average 21 years) age group. The only reasonable explanation of the etiology appears to be an uncoupling of oxidative phosphorylation. Treatment, even with early diagnosis, is difficult. (Wilson, R. D., and others: *Malignant Hypertyrexia with Anesthesia*, J.A.M.A. 202: 183 (Oct.) 1967.)

CESAREAN SECTION Twenty-six term patients for elective section were anesthetized with thiopental, nitrous oxide and succinylcholine. The flow rates of nitrous oxide and oxygen were 3 l./min. and 1.5 l./min. Blood samples were taken from a maternal artery before anesthesia; from a maternal artery and uterine vein before incision of the uterus; from the umbilical artery and vein at birth; from the umbilical artery shortly after birth and at one hour of age. Analyses consisted of determinations of oxygen, carbon dioxide, pH, lactate, pyruvate, glucose and thiopental. The mean pre-anesthesia maternal oxygen content was 6.00 millimoles/l.; maternal artery before incision of the uterus, 6.78; umbilical vein 4.17; umbilical artery at one hour, 7.15. The transplacental CO₂ difference was 9.2 mm. Hg. No pH values were reported. Mean carbon dioxide partial pressure in the pre-anesthesia maternal artery was 34.6 mm. Hg; umbilical vein 44.9; umbilical artery 48.6; umbilical artery shortly after birth 50.4; umbilical artery at one hour, 40.2. Thiopental concentration in the maternal artery eight to 16 minutes after injection was 0.49 mg./100 ml.; uterine vein 0.5; umbilical vein 0.3; umbilical artery 0.2; umbilical artery at one hour of age 0.18. Eighty per cent of the infants had a one-minute Apgar score of 7 to 10. Those with Apgar scores of less than 5 were thought to be depressed from nitrous oxide narcosis. The levels of the various metabolites measured were at least as close to the accepted normal ranges as those found in women undergoing cesarean section and exposed to spinal, epidural and cyclopropane anesthesia. (Stenger, V. G., and others: *Observations on Pentothal, Nitrous Oxide, and Succinylcholine Anesthesia at Cesarean Section*, Amer. J. Obstet. Gynec. 99: 690 (Nov.) 1967.)