

and McKay, D. G.: *Intravascular Thrombi and Intestinal Factor of Irreversible Shock*, *Ann. Surgery*, 150: 261 (Aug.) 1959).

ADRENAL RESPONSE Administration of bacterial endotoxin to an animal results in characteristic responses including hypotension, hyperglycemia, changes in the white cells and, at high dosage levels, death. The effects of the endotoxin on the adrenal cortex and medulla were studied in mongrel dogs. Small doses of *E. coli* endotoxin result in maximal adrenal cortical stimulation and fever, but infrequently lead to increased adrenal medullary secretion. Large doses of *E. coli* endotoxin result in adrenal medullary stimulation, in addition to the adrenal cortical stimulating and fever promoting activities. Transection of the spinal cord at C-7 abolishes the adrenal medullary response to large doses of endotoxin, leaving unimpaired the febrile, hypotensive and adrenal cortical responses. This suggests that adrenal medullary activation following endotoxin is dependent on descending nerve pathways in the spinal cord. Epinephrine release is not necessary for the febrile and adrenocortical stimulating effects of endotoxin. This indicates that there is a differential response of the adrenal axis more sensitive than the central nervous system center which controls epinephrine release. (Egdahl, R. H.: *Differential Response of the Adrenal Cortex and Medulla to Bacterial Endotoxin*, *J. Clin. Invest.* 38: 1120 (July) 1959.)

GERIATRIC ANESTHESIA A group of 90 geriatric patients having hip surgery, 46 with spinal anesthesia and 44 with general anesthesia, was studied. General anesthesia utilizing a technique of analgesia plus relaxants was found preferable to the hypobaric spinal anesthesia for the following reasons: (1) pain in the unanesthetized leg with unilateral spinal, (2) necessity for placing some of the patients in a prone position, (3) more hypotension during surgery and postoperatively with spinal, (4) longer time necessary to produce spinal anesthesia. The postoperative mortality of 8 per cent in those receiving spinal anesthesia and 18 per cent in those receiving general anesthesia was not considered signif-

icant. (Danielson, H. E., and Converse, J. G.: *Anesthesia for Aged: Comparative Evaluation*, *South. M. J.* 52: 1132 (Sept.) 1959.)

ANESTHETIC ANTIDIURESIS Renal excretion of water and solute were studied during intravenous infusion of glucose and water in 21 patients about to undergo elective surgical operations. Sufficient fluid was given during the infusion to provoke and subsequently maintain during the anesthesia induction a one liter positive water balance. Anxiety and atropine premedication does not inhibit a normal diuretic response to water loading. Induction of anesthesia with ether, cyclopropane and nitrous oxide caused marked antidiuresis. Thiopental induction caused no antidiuresis and prevented or lessened the antidiuretic response when inhalation agents were subsequently administered. Vasopressive responses were intact during thiopental anesthesia and no dehydrating polyuria was associated with its use. The antidiuresis following inhalation anesthesia had characteristics of antidiuretic hormone responses but, in addition, involved parallel reductions in urinary total solute and water excretion, suggesting alterations in kidney function involving other mechanisms. (Aprabonian, H. A., and others: *Influence of General Anesthetics on Water and Solute Excretion in Man*, *Ann. Surgery* 150: 122 (July) 1959.)

POSTANESTHETIC EMESIS From a study of 1,602 patients recovering from general anesthesia the following conclusions emerged: (1) The over-all incidence of vomiting was 24.3 per cent, with a higher incidence among females. (2) The influence of body structure was not marked for either sex, but emesis was less frequent in the older age groups. (3) Anesthesia with use of combined thiopental and nitrous oxide was followed by vomiting in 11 per cent of the cases. Ether and cyclopropane anesthesia were followed by vomiting in 23.3 and 24.1 per cent of the cases respectively. However, nausea and vomiting after anesthesia with ether were as a rule more persistent than after that with cyclopropane. (4) The incidence of vomiting varied significantly with the site of operation for both sexes. Head