

THIOPENTAL The duration of action of thiopental and pentobarbital has been studied in white rats. After a single dose of thiopental (15 mg./kg.), the brain equilibrated immediately with a very high plasma level which then fell as the drug was distributed in total body water and tissue. Pentobarbital equilibration, however, was delayed. Consequently the brain concentration rose to a plateau and no dose of pentobarbital produced a rapidly falling brain level. These findings explain why thiopental is an ultra short acting anesthetic while pentobarbital is not. Because of its poor blood supply, the fat takes up thiopental too slowly to be of great importance in the events that terminate the anesthetic action of a single small dose of thiopental. (Goldstein, A., and Aronow, L.: *The Durations of Action of Thiopental and Pentobarbital*, *J. Pharmacol. & Exper. Therap.* 128: 1 (Jan.) 1960.)

NARCOTIC ANTAGONISTS The ability of rat liver preparations to demethylate morphine and similar compounds has been examined. Repeated administration of levorphan, dextrophan, and morphine reduced the capacity of the liver to demethylate morphine. Neither levallorphan nor nalorphine reversed this narcotic-induced retardation of demethylation. (Mannering, G. J., and Takemori, A. E.: *The Effect of Repeated Administration of Levorphan, Dextrophan and Morphine on the Capacity of Rat Liver Preparation to Demethylate Morphine- and Morphinan-Type Analgesics*, *J. Pharmacol. & Exper. Therap.* 127: 187 (Nov.) 1959.)

ACUTE TOLERANCE Alcohol, paraldehyde, thiopental, pentobarbital, and trichloroethanol have been compared with respect to the development of acute tolerance by determining the plasma concentrations of the drug in dogs at the time of disappearance of ataxia after intravenous doses ranging from those causing only a short-lived ataxia to those producing the counterpart of deep anesthesia. The largest amount of tolerance which occurred with any of these drugs was reflected by an increase of about 100 per cent in the plasma concentration of the drug. The amount of acute tolerance observed was dependent upon the level of neurological de-

range being examined. If ability to walk was the criterion, the maximal tolerance to alcohol was only 30 per cent increase in plasma concentration of drug as compared with a 100 per cent increase when disappearance of ataxia was the end point. (Maynert, E. W., and Klingman, G. I.: *Acute Tolerance to Intravenous Anesthetics in Dogs*, *J. Pharmacol. & Exper. Therap.* 128: 192 (Feb.) 1960.)

CONSCIOUSNESS Twenty psychiatric patients all exhibiting symptoms of tenseness and anxiety were given hydroxydione 0.5 to 1 mg. intravenously as Presuren (Schering, Berlin) in 10 ml. of saline. During awakening when sleep spindles were still present on the EEG, the patients responded to simple commands, but could not talk and later remembered this fact. Next the patients could answer simple questions but not complicated ones. Sleep was not followed by depression and patients had no amnesia for the post sleep interview. (Benaim, S.: *Use of Hydroxydione in Psychiatry*, *Brit. Med. J.* 2: 801 (Oct. 24) 1959.)

ANESTHESIA AND CONSCIOUSNESS

The author reviews the evidence from his own work and that of others bearing on the problem of general anesthesia and loss of consciousness and shows that clinical evidence from traumatic, infectious, degenerative and neoplastic disturbances as well as animal experiments using brain sections, electrical recording and stimulation, local destruction and the injection of small amounts of various drug into the lateral ventricles can all be interpreted as showing that the ascending reticular activating system is intimately concerned with sleep, pain perception and sustained awareness. (Feldberg, W.: *A Physiological Approach to the Problem of General Anaesthesia and of Loss of Consciousness*, *Brit. Med. J.* 2: 771 (Oct. 24) 1959.)

DIGITALIS INTOXICATION Digitalized patients treated with chlorothiazide or similar diuretics must be closely observed since such toxicity (1) rarely includes gastro-intestinal symptoms; (2) is not necessarily accompanied by hypopotassemia; and (3) is not prevented by routine ingestion of moderate amounts of