

free or conjugated form. (Woods, L. A., and Muchlenbeck, H. E.: *Distribution and Fate of Nalorphine in Dog and Rat*, *J. Pharmacol. & Exper. Therap.* 120: 52 (May) 1957.)

NALORPHINE A comparison of the distribution of morphine and nalorphine in brain tissue was determined in dogs. Nalorphine penetrated into brain tissue much more rapidly and attained a concentration three to four fold greater than that observed with morphine. Nalorphine was dissipated from brain more rapidly than morphine. Nalorphine did not significantly alter the gross brain concentration of morphine. (Woods, L. A.: *Comparative Distribution of Morphine and Nalorphine in Dog Brain*, *J. Pharmacol. & Exper. Therap.* 120: 58 (May) 1957.)

DIGITALIS TOXICITY A 77-year-old woman developed marked carotid sinus sensitivity so that swallowing cold water or pressure on the carotid sinus produced syncope with cardiac arrest and nodal escape. When the digitalis was discontinued, sensitivity of the carotid sinus disappeared. (Glotzer, S.: *Syncope as Indication of Digitalis Toxicity*, *Circulation* 16: 107 (July) 1957.)

METABOLIC CHANGES When given at a rate of 0.5 Gm./kg./hour, there is no difference in electrolyte balance between intravenous injection of dextrose or fructose. A patient who does not have unusual extrarenal losses, advanced malnutrition, cardiac, renal, liver or endocrine disease will be in equilibrium on a daily intake of 80-100 mEq. each of sodium, potassium and chloride. (Abbott, W. E., and others: *Metabolic Alterations in Surgical Patients; Sodium, Potassium, Hexose and Water Secretion Following Intravenously Administered Dextrose or Fructose Solutions*, *Surgery* 42: 296 (Aug.) 1957.)

ACETYLCHOLINE The distribution in the nervous system of acetylcholine and the enzymes which metabolize it are reviewed. In the central nervous system, it seems that acetylcholine production is limited only to a proportion of the central

neurons; the remainder must rely upon some other unidentified mechanism for the transmission of their messages. One of the precursors of acetylcholine is choline acetylase. In the discussion of choline acetylase formation and function it is noted that ether, acetone and the cholinesterases do not affect its activity. Although acetylcholine production is decreased by narcotics or local anesthetics in respiring brain slices, this does not seem to be due to inhibition of the choline acetylase mechanisms. Only chloroform may have a slightly inactivating effect. (Hebb, C. O.: *Biochemical Evidence for Neural Function of Acetylcholine*, *Physiol. Rev.* 37: 196 (April) 1957.)

METABOLISM OF THIOPENTAL

Enzyme systems metabolizing thiopental and pentobarbital were studied *in vitro* with rabbit tissue homogenates. Both drugs were oxidized in liver homogenates while thiopental was metabolized to a lesser extent in kidney, brain and other tissues. The oxidation of pentobarbital and thiopental seemed to be carried out by different catalytic systems. (Cooper, J. R., and Brodie, B. B.: *Enzymatic Oxidation of Pentobarbital and Thiopental*, *J. Pharmacol. & Exper. Therap.* 120: 75 (May) 1957.)

BARBITURATE POTENTIATION

The compound *N*-ethyl-piperdyldiphenylacetate hydrochloride (EPDA) is used for its antisecretory and spasmolytic activities. In large doses it is a stimulant to the central nervous system and in even higher doses will produce convulsions. However, pretreatment with the drug causes an increase in the mean sleeping time of mice anesthetized with hexobarbital. It is concluded that EPDA may represent a useful, relatively nontoxic agent for the potentiation of barbiturate hypnosis. (Fujimoto, J. M.: *Enhancement of Hexobarbital Hypnosis*, *Bull. Tulane Univ. Med. Faculty* 16: 167 (Aug.) 1957.)

FLUOTHANE The clinical experiences of a group of anesthetists from the administration of Fluothane for 2,500 operations was reported. No fatalities occurred and no serious postoperative illnesses were