

under sodium barbital anesthesia than under the other anesthetic combinations. Because of the above sequence of events during the first hours after induction of anesthesia with any of these drugs we recommend that a control period of at least 3 to 4 more hours elapse following anesthetization before proceeding with experimental studies, if hematocrit, oxygen consumption, rectal temperature, or cutaneous blood flow are to be studied. Such a control period is desirable even when the rectal temperature is being maintained constant by warming the animal." 27 references.

J. C. M. C.

CORCORAN, A. C., AND PAGE, I. H.: *Effects of Anesthetic Dosage of Pentobarbital Sodium on Renal Function and Blood Pressure in Dogs*. Am. J. Physiol. 140: 234-239 (Nov. 1) 1943.

"Since many procedures in physiology and experimental surgery require the use of anesthesia, it is important to recognize the deviations from the normal which the anesthetic may produce. Pentobarbital sodium is widely used for experimental anesthesia but, as Mylon, Winternitz and de Sütö-Nagy (1943) point out, certain side effects of the anesthesia may mimic some phases of experimental shock. They note among these untoward effects suppression of renal function and lowering of blood pressure, and consider that, 'while there are undoubtedly individual variations in the response to nembutal,' i.e., sodium pentobarbital, 'on the part of animals, the major factors are the size of the dose and the method of its administration.' It was their experience that the use of a 25 mgm. per kilo intravenous dose of the drug was more satisfactory than a dose of 30 mgm. per kilo because it was less toxic. It seems likely that intraperitoneal administration would be still less depressing than intravenous use;

the peak of its concentration in the blood would be reached more slowly than with intravenous dosage, while the direct entry of some of the drug into the portal blood would result in its early destruction in the liver. This is the reasoning behind the practice in this laboratory of anesthetizing dogs by intraperitoneal injection of a 2.5 per cent aqueous solution of pentobarbital sodium (Lilly) in a dosage of 30 mgm. per kilo body weight. That the anesthesia thus induced is not commonly associated with evidence of toxic depression is shown by the observations of renal function and arterial pressure which form the basis of this report. . . .

"Anesthesia induced in dogs by intraperitoneal administration of 30 mgm. per kilo body weight of pentobarbital sodium does not usually impair renal function, for diodrast clearance and tubular secretory capacity as well as insulin clearance may be unaltered as compared with values observed in the resting conscious state. The maintenance unaltered of effective renal plasma flow (plasma diodrast clearance) and filtration fraction during the increase of arterial pressure induced by anesthesia indicates that the afferent arterioles have moderately constricted, in response, not to the anesthesia, but to the hypertension it causes. When renal failure occurs, it is associated with marked oliguria and with concurrent depression of diodrast and insulin clearances independently of changes in arterial pressure. Attention is drawn to the increase of arterial pressure commonly present during pentobarbital anesthesia in dogs. Levels of 110 to 120 mm. Hg which might be accepted as normal in conscious dogs may express toxic depression under pentobarbital anesthesia. It is suggested that the onset of severe oliguria, indicating as it does the onset of renal failure, may provide a more delicate index of the toxic effects of the

anesthetic than does a decrease of arterial pressure." 13 references.

J. C. M. C.

CORY, R. A. S.: *Thoracoscopic Removal from the Chest of a Broken Anesthetic Needle: Case Report.* J. Thoracic Surg. 12: 753 (Dec.) 1943.

"The patient was to be submitted to a closed pneumonolysis, and the chest wall being thin, the local anesthetic was being given with a long tuberculin needle which broke below the surface of the skin. . . . X-rays taken later revealed it lying halfway up the dome of the diaphragm. . . . A right-angled Jacobaeus-Unverricht thoracoscope was introduced low down in the chest in order to be near the diaphragm, and the fragment of the needle was quite easily located. Through a second cannula a pair of forward-grasping Chevalier Jackson bronchoscopic forceps was passed, and the needle was picked up by one end without any great difficulty—but at right angles to the forceps—and no amount of coaxing could induce it to alter its angle until it finally slipped from the jaws of the forceps and fell back into the chest. It was then picked up squarely by its center, brought up to the chest wall within easy view of the thoracoscope and driven a short way into the parietal pleura by its point. Grasp of the forceps was then relaxed, and the needle remained sticking in the pleura in such a position that it was easily seized by its protruding end, in line with the forceps, and drawn out through the cannula." 1 reference.

J. C. M. C.

GUTTMAN, S. A.: *Demerol: Caution in Administration to Patients with Intracranial Lesions.* J. A. M. A. 124: 155-157 (Jan. 15) 1944.

"Twenty patients with intracranial lesions were given demerol parenterally in therapeutic doses on one or more

occasions. In 7 of the 20 patients the respiratory rate fell from the usual rate of 18-22 per minute to 12 per minute or less. In 5 patients respirations fell to 12 per minute, in 1 patient to 8 per minute and in another patient to 4 per minute. Also instances of contracted pupils with sluggish response to light were observed. It is felt that, from the data which were at hand, demerol should be administered with caution, if at all, to patients with intracranial lesions." 9 references.

J. C. M. C.

SCHUMANN, W. R.: *Demerol (8-140) and Scopolamine in Labor: a Study of 1000 Cases.* Am. J. Obst. & Gynec. 47: 93-104 (Jan.) 1944.

"Demerol and scopolamine have been used in a series of 1000 cases for the purpose of studying the maternal and fetal effects of this combination when used as an obstetrical analgesic. Because our primary purpose in medication is establishing complete amnesia, we incorporate scopolamine in our routine as the amnesic drug of choice. Demerol is used to obtain psychic sedation through its analgesic effect, thereby securing a favorable background for the action of scopolamine, reducing the excitement, and enhancing the amnesia. . . . It is our opinion that while demerol possesses other properties that make it more desirable for purposes of obstetrical analgesia than the barbiturates, it falls slightly short of the barbiturates in providing satisfactory amnesia as measured by our standards. The average primiparous labor in this series was 12.4 hours, the average multiparous labor 7.6 hours. This is a reduction of 2.5 hours in the primiparous labor and 1.2 hours in the multiparous labor when compared with a series of 500 patients . . . who received barbiturate analgesia. Since this represents a 17 per cent and 14 per cent reduction re-