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Effect of Nembutal upon Serum Cholesterol of Dogs.*

EMILY H. BIDWELL, FREDERICK H. SHILLITO, AND KENNETH B. TURNER.

From the Department of Medicine, College of Physicians and Surgeons, Columbia University, and the Presbyterian Hospital, New York City.

In certain operative procedures upon dogs, nembutal was used as the anesthetic. It was necessary to know in these animals whether nembutal *per se* influenced the level of cholesterol in the blood. There are numerous references in the literature to the effects of various anesthetics, particularly ether and chloroform, upon the blood lipids. We were, however, unable to find any report concerning the action of nembutal upon the blood cholesterol.

Because of the absence of this information about an anesthetic widely used, particularly in experimental work, we were prompted to make this brief report.

A fresh 10% solution of nembutal (Abbott) in normal saline was injected intraperitoneally in 7 dogs. Approximately 40 mg. per kg. body weight were sufficient to produce deep narcosis lasting several hours. A sample of blood was obtained before the nembutal was

TABLE I.

Dog No.	Hours after nembutal	Serum cholesterol mg./100 cc.
169	0	184
	5	179
304	0	149
	2	163
	5	160
	10	163
	21	165
	25	163
554	0	106
	5	108
573	0	200
	5½	198
574	0	234
	2½	238
	6½	243
577	0	179
	6½	170
579	0	159
	5	161

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given and at certain intervals after anesthesia was induced. Determinations of the total cholesterol were made on the serum according to the method of Bloor, Pelkan and Allen.[1] The dogs were in the fasting state in all instances except dog No. 304, which had received a high-cholesterol meal 2 hours before anesthesia was produced.

The results are shown in Table I.

Conclusions. Nembutal in amounts sufficient to produce deep narcosis lasting several hours in dogs is without significant effect upon the level of the total serum cholesterol.

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An Improved Method for Determination of the Gonadotropic Hormone.

U. J. SALMON* AND ROBERT T. FRANK.

From the Laboratories and Gynecological Service of the Mount Sinai Hospital, New York City.

The following method for the extraction of gonadotropic hormone from human blood is a modification and improvement of the acid alcohol method previously reported from this laboratory.[1]

With the old method only a faint Reaction I was demonstrable in 40 cc. of blood taken on the 8th to the 12th day of the cycle. With the new method it has been possible to obtain both strong Reaction I and III with the same amount of blood at a comparable point in the cycle.

Method. (1) 40 cc. of vein blood is mixed with 30 gm. of anhydrous sodium sulphate, stirred to dryness and pulverized. (2) 200 cc. of 60% alcohol, acidified with 50% acetic acid to pH 5, is then added to the powder and shaken for one hour in a mechanical shaker. (3) The mixture is centrifuged and the supernatant alcohol decanted and kept. (4) A similar second extraction of the residual sludge is made. (5) The 2 alcohol extracts are each concentrated by evaporation under a fan at room temperature to a volume of 50 cc. and then centrifuged. (The concentration can be

1 Bloor, W. R., Pelkan, K. F., and Allen, D. M., *J. Biol. Chem.*, 1922, **52**, 191.

*Joseph Brettauer Research Fellow in Gynecology.

1 Frank, R. T., Goldberger, M. A., and Spielman, F., PROC. SOC. EXP. BIOL. AND MED., 1931, **28**, 999.