is removed and discarded and as the rubber tube straightens (fig. 2), the placement catheter is inserted through the rubber tube and short introduction catheter into the vein. Should the long catheter require manipulation, there is no danger of cutting it, as the placement tube through which it protrudes has no cutting edge. The presence of a closed system decreases the danger of air embolus and the long catheter, being already attached to the system, decreases blood loss and the danger of contamination of the hub.

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REFERENCE

1. Drabinsky M: Retrieval of embolized central venous catheters by a Dormia ureteral stone dislodger with a straight filiform tip. Chest 69:435–437, 1976

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Fasting and Metabolism

To the Editor:—It has been my experience when working with nephrectomized rats that the trauma associated with nephrectomy causes them to stop eating. I am curious to know whether Dr. Ghoneim *et al.* had the same experience.[1] If the nephrectomized rats used in their study did stop eating, then they would have been "fasted" animals, and this would have had considerable impact on the interpretation of the results. It is well known that fasting, even for short periods, greatly alters hepatic metabolism of barbiturates, causing a significant increase in the "sleep time" of rats and presumably increasing plasma free barbiturate.[2] In addition, fasting causes blood free fatty acids to increase. Free fatty acids have been shown to be direct competitive inhibitors with thiopental for albumin protein-binding sites.[3] While I agree with the authors concerning the conclusions of their study, other interpretations are possible, depending on the nutritional state of the rats.

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REFERENCES

1. Ghoneim MM, Pandya HB, Kelley SE, et al: Binding of thiopental to plasma proteins: Effects on distribution in the brain and heart. ANESTHESIOLOGY 45:635–639, 1976
2. Campbell TC, Hayes J: Role of nutrition in the drug-metabolising enzyme system. Pharmacol Rev 26:171–197, 1974
3. Rudman D, Bixler TJ, Del Rio AE: Effect of free fatty acids on binding of drugs by bovine serum albumin, by human serum albumin and by rabbit serum. J Pharmacol Exp Ther 176:261–272, 1971

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To the Editor:—I thank Dr. Miletich for his interest in our paper. He suggests that the increases in sleep times and the unbound thiopental levels in nephrectomized rats may have been due to alteration of hepatic metabolism and increase of the plasma free fatty acid concentration by fasting.

It is unlikely that alteration of hepatic metabolism would increase sleep time. Novelli *et al.*,[1] in a recent study in rats, found that portal injection of thiopental or pretreatment of the animals with microsomal enzyme inducers or inhibitors did not modify the duration of action of the drug.

Increased plasma free fatty acid concentrations can compete with many acidic drugs for albumin-binding sites. The contribution of plasma free fatty acids to the reduction of plasma protein binding of thiopental in our experiments is unknown, since we did not measure plasma free fatty acids. There is, however, evidence for a qualitative change in the plasma proteins in uremia.[2]

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REFERENCES

1. Novelli GP, Marsili M, Lorenzi P: Influence of liver metabolism on the action of althesin and thiopentone. Br J Anaesth 47:913–916, 1975
2. Shoeman DW, Azarnoff DL: The alteration of plasma proteins in uremia as reflected in their ability to bind digitoxin and diphenylhydantoin. Pharmacology 7:169–177, 1972

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