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### Lipolysis by Halothane Questioned

*To the Editor:*—The article, "Studies of the Dual Effects of Halothane on the Lipolysis of Human Fat Cells," by Drs. J. Bennis and U. Smith (*ANESTHESIOLOGY* 45:379-384, 1976) falls short of its title and lacks adequate documentation to make the results interpretable for the reader. The data presented to document "the dual effects of halothane on lipolysis" are, at best, questionable, since they were obtained under different experimental conditions.

Fragments of fatty tissue, and not fat cells, were used (although the method for obtaining the latter is available).<sup>1</sup> More importantly, one does not know when halothane "via the gas phase above the medium" was added. Was the experiment performed when equilibrium was achieved? When was it achieved, if known? Was the rate of lipolysis linear during the two-hour incubation? The reader cannot compare the concentrations of halothane added directly to the medium with the concentrations of halothane in the experiments when it was added via the gas phase.

The results listed in Table 2 of the article are even more disturbing. Halothane,  $10^{-6}$  M, produces an increase of lipolysis of 27.7 per cent above control with a standard error of the mean of 34.8 per cent. This result is claimed to be significant as determined by the t test for paired data, but the reader cannot confirm this. The data

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### Magnesium Deficiency Causing Persistent Hypokalemia

*To the Editor:*—I wish to comment on the case of primary aldosteronism with severe total-body depletion of potassium reported by Gangat and colleagues (*ANESTHESIOLOGY* 45:542-544, 1976). Upon induction of anesthesia the patient had tonic muscular contractions of the upper torso and arms, and possible diagnoses of myotonia dystrophica, malignant hyperpyrexia, electrolyte imbalance, and cerebrovascular accident were considered. Subsequently a marked total-body deficit of potassium was determined to be present; it took nine days of intensive therapy to correct the deficit.

I wish to emphasize that primary aldosteronism may cause profound urinary excretion of magnesium as well as potassium. Once established, hypomagnesemia may make correction of the po-

assium deficiency more difficult and protracted unless magnesium is also administered.<sup>1</sup> Anesthetists should be aware of the relationship of magnesium to potassium and consider measurement of magnesium levels when they encounter unexplained hypokalemia.

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