Beneficial Effects of Halothane on Myocardial Ischemia

To the Editor—In their recent article, Dr. Verrier and his colleagues\(^1\) were kind enough to cite our earlier studies\(^2\) which demonstrated that halothane produced an increase in coronary vascular resistance. However, their own elegant studies have demonstrated that by using waterfall pressure rather than left ventricular end-diastolic pressure in the calculation of vascular resistance, halothane produces no change. Their studies may therefore reconcile conflicting data in previous investigations on this subject.\(^3\)^
Dextran Is Not a Potent Local Anesthetic Adjuvant

To the Editor:—I read with interest the letter by R. E. Loder\textsuperscript{1} on the use of dextran as a local anesthetic adjuvant. The scientific literature does not support his contentions, however.

Based upon research conducted at the University of Washington, the Mason Clinic, and my own laboratory at the University of California, Davis, the following statements regarding dextran and regional anesthesia are more realistic:

1) Dextran does not form a macromolecular complex with local anesthetics.\textsuperscript{2,3}

2) Dextran's mechanism of action as a local anesthetic adjuvant appears to be a function of its pH. The more alkaline the dextran, the greater the prolongation of block.\textsuperscript{2}

3) Pharmaceutical dextrans can vary markedly in pH. For example, Rheomacrodex\textsuperscript{®} (Pharmacia), the most widely used dextran in the United States, has a pH of 4.5 to 5.5 in contrast to Dextravene\textsuperscript{®} (Fisons) which has a neutral pH. This difference in pH explains some of the contradictory dextran studies that have appeared in the anesthesia literature.

4) The higher molecular weight dextrans are not more potent local anesthetic adjuvants. In a recent study, dextran 40 proved superior to dextran 75, 110, and 150 at prolonging bupivacaine's duration of block in an experimental model. The result we attributed to the pH of the dextrans used in the study and not to their respective molecular weights.\textsuperscript{4}

5) Finally, dextran is a rather mediocre and impractical local anesthetic adjuvant for clinical use. The maximum prolongation of block that we have been able to elicit experimentally is approximately 50 per cent using a dextran selected specifically on the basis of its alkalinity.

It is evident that the need for dextran as a local anesthesia adjuvant has diminished since Loder first advocated its use in 1960.\textsuperscript{5} The duration of block produced by the