sponses, and hemodynamics during anesthesia. In general, these are not the mechanisms whereby chemicals initiate tumor formation.

The question of whether inhaled anesthetics accelerate the progression of tumors in humans is by no means resolved. As Dr. Frankel implies in his letter, this important clinical question should be further explored.

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Detection of Contaminated Nitrous Oxide

To the Editor:—Recently, during the early stages of induction of anesthesia, with only nitrous oxide and oxygen flowing, it was noted that a previously calibrated and properly zeroed infrared anesthesia agent monitor (AAM-222, Puritan Bennett Corporation) was displaying 0.5% halothane prior to the agent being turned on. The machine was zeroed to air, but, when the sampling tube was replaced in the line, it again read 0.5%.

To trouble-shoot the problem prior to calling for repairs, the AAM was re-calibrated and re-zeroed. However, when the nitrous oxide wall source was turned on, the AAM immediately read 0.5%.

An outside firm was contacted to analyze our nitrous oxide for contamination. An infrared scan revealed a peak at 3.4 microns in the nitrous oxide coming from the main supply, which was not present in the E cylinder nitrous oxide. Further analysis by gas chromatography revealed the following contaminants: methane—detected, but not <0.02 PPM; ethane—0.2 PPM; propane—3.4 PPM; isobutane—0.02 PPM; N-butane—41.7 PPM; pentane—46.0 PPM; and hexane—0.8 PPM.

The concentrations as shown do not constitute a hazard. Other than removing the questionable lot from use, no further steps were taken by this hospital, inasmuch as it was not warranted.

These impurities do, however, show that there was defective quality control in manufacturing and/or processing of nitrous oxide, which was subsequently found and corrected. Thus, although not designed as such, the AAM-222 can prove invaluable in the detection of hydrocarbon contaminants of anesthetic gases.

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