In reply:—This is in response to the letter from Dr. Rumley. All of his points are almost meticulously correct and are well-taken, including the statements of implied cause and effect. However, we have considered the detrimental effects of improperly cleansed colons and this was clearly discussed in paragraph four of the discussion.

When the risks of parenteral administration equal the risks of long-term pulmonary aspiration in esophageal and dysphagic problems, peroral bulk of any kind must be avoided. Obviously, in these patients, orally administered antibiotic bowel preps also most likely will be less than optimum in terms of fermentative bacterial growth inhibition.

The conspiracy of factors including inadequate control of bacterial flora, fermentation of a nitrogen-carbohydrate substrate, explosive gas trapped by a cutting stapler, application of heat and spark, are cause and effect. One might add that we sometimes are not masters of our technology, and then in a sequential fashion get lulled and hoisted by our own petard. All of the explosion hazard and O.R. designs would not help this patient.

Certainly Ensure does not cause explosions. Sparks do. Since spectrophotometric studies were not done of the explosion, it is impossible to determine the absolute components of the explosive mixture. Nevertheless, we will no longer open the colon with electrocautery, whether it be empty or full, clean or dirty, prepared or unprepared—unless it is vented or suctioned. We will certainly continue our efforts according to the excellent principles of bowel preparation expressed by Dr. Rumley, including the use of Ensure or an equivalent.

PETER R. FREUND, M.D.
Assistant Professor
Department of Anesthesiology
Veterans Administration Hospital
University of Washington School of Medicine

HUBERT M. RADKE, M.D.
Chief, Surgical Service
Veterans Administration Hospital
Associate Professor
Department of Surgery
University of Washington School of Medicine

Veterans Administration Medical Center
4435 Beacon Avenue South
Seattle, Washington 98108
(Accepted for publication August 3, 1983.)

Nitrous Oxide and the Prevention of Tension Pneumocephalus after Craniotomy

To the Editor:—In a recent clinical report,1 Artru states that his intraoperative observations of increased ICP with introduction of N₂O and decreased ICP with discontinuation of N₂O after dural closure in the sitting position fail to support my proposal for prevention of tension pneumocephalus in the postoperative period. I suggested that “it may be advantageous to maintain anesthesia with high inspired concentrations of nitrous oxide until dural closure so that a pneumocephalus that formed intraoperatively would contain nitrous oxide that would then be reabsorbed rapidly when nitrous oxide was discontinued.” What Artru actually noted was a dramatic increase in ICP when nitrous oxide was continued after dural closure. There was then a rapid decrease in ICP (within five minutes) after discontinuing nitrous oxide. Had nitrous oxide been discontinued


(Accepted for publication August 3, 1983.)