

cumulative, with residual effects suggesting that the etiologic agent was probably a product of the biotransformation of the parent compound. This is the first report suggesting long-term residual effects on cardiac rhythm associated with chronic, low-level exposure to halogenated alkanes.

Because of the similarities in chemical structures, the fact that most of the halogenated alkanes and ethers undergo biotransformation, and the many common pharmacologic properties within this series of compounds, it is suggested that cardiologic examination for evidence of arrhythmias be conducted on operating room personnel as part

of the increasingly critical monitoring of their occupational health.

ETHARD W. VAN STEE, D.V.M., Ph.D.
*National Institute of Environmental
Health Sciences*
P.O. Box 12233
Research Triangle Park, N.C. 27709

REFERENCES

1. Vaisman AI: Working conditions in surgery and their effect on the health of anesthesiologists. *Eksp Khir Anesteziol* 3:44-49, 1967
2. Speizer FE, Wegman DH, Ramirez A: Palpitation rates associated with fluorocarbon exposure in a hospital setting. *N Engl J Med* 292:624-626, 1975

(Accepted for publication December 2, 1975.)

False Radial-artery Blood-pressure Readings

To the Editor:—In their article, "An unusual cause of false radial-artery blood-pressure readings during cardiopulmonary bypass" (*ANESTHESIOLOGY* 43:487, 1975), Drs. Saka, Lin and Oka describe the occurrence of falsely low blood pressure readings from a radial-artery cannula, and suggest the etiology to be partial subclavian-artery compression similar to the thoracic outlet syndrome. We have had a similar experience, in which early recognition of the problem not only prevented unnecessary administration of vasopressors, but altered the type of revascularization procedure the patient underwent.

The patient was a 37-year-old obese man who had an obstructive lesion in the proximal left anterior descending coronary artery. A bypass procedure utilizing the left internal mammary artery was planned. Prior to induction of anesthesia, an 18-gauge cannula was placed in the left radial artery for continuous recording of blood pressure. Induction of anesthesia and operation were uneventful until the sternal retractor was further opened to better expose the left internal mammary artery. At this time radial arterial pressure fell from 100/55 to 45/0 torr, with a simultaneous decrease in pressure in the left internal mammary artery as palpated by the surgeon. There was a suspicion that this decrease in blood pressure did not represent systemic pressure but was the result of

mechanical compression of the left subclavian artery proximal to the origin of the internal mammary artery. At our request the sternal retractor was opened and closed several times, each time reproducing the above-mentioned finding. Because of this event, it was elected not to use the internal mammary artery, but to use a saphenous vein graft instead. The remainder of the procedure was uneventful, and the patient made an unremarkable recovery.

In our example, if the left internal mammary artery had been used, it is conceivable that during closure of the chest, blood flow through the artery might have been reduced enough to cause stasis or clotting. Additionally, post-operatively the patient could assume a posture that might partially or totally compress the left subclavian artery proximal to the origin of the left internal mammary artery and thus compromise blood flow to the already ischemic myocardium.

We encourage others to view this finding critically and to make surgeons aware of similar occurrences.

MICHAEL DIAMANT, M.D.
DAVID B. ARKIN, M.D.
*Department of Anesthesiology
University Hospital
San Diego, California 92103*

(Accepted for publication December 5, 1975.)