little drop in blood pressure, than they do general anesthesia. (e) Convalescence is much less stormy with spinal anesthesia. . . . (f) It should not be considered a failure to supplement spinal with other forms of anesthesia, particularly with sodium pentothal." 6 references.

F. A. M.

KELLY, MICHAEL: *Failure of Oil-Soluble Anesthetics to Give Prolonged Analgesia.* The Lancet 1: 710–711 (May 24) 1947.

After observing that oil-soluble anesthetics produced analgesia of only a few hours duration, the author performed an experiment on himself. He injected 3 cm. of proctocaine or of B.A.B.A.N. under the skin over the tibia. The area of skin, about 3 inches in diameter, was slightly bulged by the oil and became totally anesthetic within twenty seconds as did the underlying periosteum. The anesthesia lasted only three hours, cutaneous sensation was normal after that time. The periosteum was abnormally tender for a few days. The swelling due to the oil was visible for ten days, but no diminution of cutaneous sensation could be detected. No significant difference was noticed between the effects of the two agents. From the results of these experiments the claims made on behalf of oil-soluble anesthetics cannot be substantiated. It is doubtful if oil has any general value as a vehicle for prolonging the action of therapeutic agents after intramuscular or subcutaneous injection. 9 references.

F. A. M.

KRANTZ, J. C., JR.; CARR, C. J.; MUSSER, RUTH D.; AND SAUERWALD, MARY JANE: *Anesthesia. XXVIII. The Anesthetic Action of Ethyl Vinyl Ether.* J. Pharmacol. & Exper. Therap. 90: 88–94 (May) 1947.

It occurred to the authors that ethyl vinyl ether represents more completely a cross between ethyl ether and ethylene than does divinyl oxide. A small sample of ethyl vinyl ether was obtained by Leake, in 1930, from Prof. S. Fraenkel of Vienna. In studies on 4 mice Leake found that the compound had an oil water coefficient of 0.5 ± 0.1. He reported the compound to have more potent anesthetic properties than ethyl ether. Shostaskovskii found the agent to be less potent than ether, although it exhibited anesthetic properties in frogs.

Ethyl vinyl ether is a colorless, volatile liquid. The odor resembles that of divinyl oxide. The specific gravity is 0.755 at 20 C. and the boiling point is 35.8 C. Several species of animals were used in experimental studies. The potency of ethyl vinyl ether is about twice that of ethyl ether; it is less potent than divinyl oxide but requires 1.7 cc./Kg. to produce respiratory arrest in the dog, whereas with divinyl oxide 0.8 cc./Kg. is required. No functional damage to the liver could be demonstrated in the dog. In the rat, dog and monkey, no histopathological changes were produced in the liver and kidneys. The hearts of dogs and monkeys showed no significant electrocardiographic changes under anesthesia with ethyl vinyl ether. The blood pressure of the dog remains essentially unchanged.

After the experiments were completed ethyl vinyl ether was given to an anesthetist by the open drop method. The induction period was about sixty seconds. Light anesthesia was maintained for about six minutes. The blood pressure and pulse were not significantly altered and the recovery was uneventful and rapid. The vapors did not irritate the upper respiratory tract, according to the subject. 9 references.

F. A. M.