anesthetist. Of the three parameters we have discussed, twitch tension appears to be the most useful single index of the action of dtubocurarine. (The effect of even one-mg doses could be detected in our study.) The ability to sustain tetanus and visual examination of posttetanic twitch tension are considerably less important, for reasons we have discussed.

References

- 1. Churchill-Davidson, H. C., and Wise, R. P.: Prevention, diagnosis and treatment of prolonged apnoea, Brit. J. Anaesth. 32: 384, 1960.
- 2. Katz, R. L., and Gissen, A. J.: Neuromuscular and electromyographic effects of halothane and its interaction with d-tubocurarine in man, Anesthesiology 28: 564, 1967.
- 3. Katz, R. L.: Neuromuscular effects of diethyl ether and its interaction with succinylcholine and d-tubocurarine, Anesthesiology 27: 52,
- 4. Katz, R. L.: Neuromuscular effects of d-tubocurarine, edrophonium, and neostigmine in man, ANESTHESIOLOGY 28: 327, 1967.
- 5. Sabawala, P. B., and Dillon, J. B.: Action of volatile anesthetics on human muscle preparation, Anesthesiology 19: 587, 1958.
- 6. Gissen, A. J., Karis, J. H., and Nastuk, W. L.: Effect of halothane on neuromuscular transmission, J.A.M.A. 197: 770, 1966.
- 7. Karis, J. H., Gissen, A. J., and Nastuk, W. L.: Mode of action of diethyl ether in blocking

- neuromuscular transmission, ANESTHESIOLogy 27: 42, 1966.
- 8. Ngai, S. H., Hanks, E. C., and Farhie, S. E.:

 o Effects of anesthetics on neuromuscular transmission and somatic reflexes, ANES-THESIOLOGY 26: 162, 1965.
- 9. de Jong, R. H., Hershey, W. N., and Wagman I. H.: Measurement of a spinal reflex response (H-reflex) during general anesthesia in man. Association between reflex depres sion and muscular relaxation, ANESTHESIOL ocy 28: 382, 1967.
- 10. Botelho, S. Y., and Cander, L.: Post-tetanic@ potentiation before and during ischemia in intact human skeletal muscle, J. Applo Physiol. 6: 221, 1953.
- 11. de Jong, R. H., and Freund, F. G.: Charac-teristics of the neuromuscular block with succinylcholine and decamethonium in man ANESTHESIOLOGY 28: 583, 1967.
- 12. Epstein, R. A., Wyte, S. R., Jackson, S. H. and Sitter, S.: The electromechanical response to stimulation by the Block-Aid moni $\stackrel{\circ}{\ominus}$ tor, Anesthesiology 30: 43, 1969.
- 13. Heisterkamp, D. V., and Cohen, P. J.: Tech ANESTHESIOLOGY 29: 1210, 1968.
- 14. Brown, G. L., and Burns, B. D.: Fatigue and neuromuscular block in mammalian skeletal muscle, Proc. Roy. Soc. London, Ser. B& 136: 182, 1949-1950.
- 15. Katz, R. L.: Comparison of electrical and me

Drugs

Latz, R. L.: Comparison of electrical and medical recording of evoked muscle activity. The clinical valuez of continuous recording as an aid to the rational use of muscle relaxants during anesthesia, Anesthesia MASSIVE HEPATIC NECROSIS This abstract is a summary of a clinicopathologic conference from Washington University School of Medicine. A 67-yearold woman underwent percutaneous translumbar aortography, followed seven days later by superficial femoral popliteal artery bypass, which was followed two weeks later by left femoral endarterectomy. For all operations, anesthesia consisted of halothane, nitrous oxide, oxygen and thiopental. Four days after the third operation, the patient became jaundiced. Despite treatment, the jaundice deepened; she became obtunded, oliguric, and hypotensive, and died 24 days later. Autopsy revealed lobar pneumonia, acute massive hepatic necrosis, renal tubular necrosis, and pneumococcal meningitis. The admonition is made to avoid a second use of halothane anesthesia in any patient exhibiting fever and jaundice after one exposure to halothane. In addition, repeated frequent exposure to halothane is not recommended. (Clinicopatholige Conference: Massive Hepatic Necrosis Following Multiple Exposures to Halothane, Amer. J. Med. 45: 589 (Oct.) 1968.)