blick, Am. J. Physiol. 207: 1330, 1964). As Dr. Pollack indicates, this relation may be expressed as $dP/dl = k \cdot P + C$, where P is load, k a constant for the slope of the linear equation, and C a constant for the linear intercept. Since C, which is dP/dl at zero load, is consistently quite small and not influenced by any inotropic intervention or temperature (Parmley and Sonnenblick, Circ. Res. 20: 112, 1967; Yeatman *et al*; Am. J. Physiol. 217: 1030, 1969), it has been disregarded, and the equation becomes $dP/dl = k \cdot p$.

Thus, for use in the intact heart, $k = 24.7$ (corrected for a muscle 1 cu cm in dimension), and dP/dl becomes $k \cdot p$.

4) Several mechanical analogues of muscle have been proposed. Recent study shows the Maxwell-type model a preferred approximate model of cardiac muscle. However, according to Hill (Proc. Roy. Soc. Med., Ser. B., 126: 136, 1938), muscular contraction can be considered conceptually in terms of two series components: an active contractile element (*CE*), and an undamped passive series elastic element (*SE*). Both *CE* and *SE* are coupled to a parallel elastic component (*PE*). The parallel elastic component (*PE*) does not appear to participate directly in contraction and may contribute to resting tension only when relatively large initial muscle lengths are attained. It has been shown sufficient to use the simplified form of the two-component systems for analysis of muscular contraction (Sonnenblick, Am. J. Physiol. 21: 975, 1962). Use of a more complicated model only leads to unnecessary complicated mathematical calculation without yielding additional fruitful information.

5) Finally, the use of thin-wall spherical configuration for the left ventricle has been accepted by many investigators. Recent study of a comparison of calculations of circumferential wall-stress in the left ventricle, based on the thin-wall model and the thick-wall model, revealed that the thin-wall model overestimates only 5 to 15 per cent mean stress, as compared with the thick-wall model (Hood *et al.*, Circ. Res. 24: 575, 1969). Therefore, calculation of V_{max} is not seriously affected by the assumption that the left ventricle is a thin-wall spherical or ellipsoidal model. I believe that mathematics are a convenient means for the modern cardiovascular researcher, but the mere use of mathematics without thorough understanding of basic cardiovascular dynamics leads to erroneous conlcusions. Certain valid assumptions are necessary, so long as the user is aware of error related to the assumptions and the basic fundamental concept is not seriously distorted.

SHIRO SHIMOSATO, M.D.
Associate Professor
Department of Anesthesiology
Tufts–New England Medical Center Hospitals
Boston, Massachusetts 02111

Halothane for Cesarean Section

To the Editor:—In the paper "Intravenous Thiobarbiturate Anesthesia for Cesarean Section" by Kosaka, Takahashi and Mark ANESTHESIOLOGY 31: 489, 1969), it is stated that halothane was used in some cases for the induction of anesthesia and it was used routinely following delivery of the baby.

In my limited experience I thought that halothane's relaxing effect on uterine musculature made it unsafe to use in operations on the pregnant uterus. Will you please comment on the use of halothane under these circumstances.

W. J. NEAL, M.D.
Detwiler Memorial Hospital
Shoop Ave.
Wauseon, Ohio 43567

Reply to Dr. Neal:—You are correct in implying that halothane, according to the evidence available, may increase uterine bleeding, possibly through an effect on uterine muscle tone. It is not my role as editor to comment on the safety of the drug, since much depends upon how an anesthetic is given.—The Editor

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