

muscular refractory period,<sup>8</sup> it is the neuromuscular refractory period which determines the nature of the evoked contraction. Thus, anything which increases this refractory period, such as anticholinesterases, depolarizing muscle relaxants, tetanic stimulation, and certain anesthetic agents, will tend to decrease the evoked response to paired stimuli separated by a critical interval (unpublished observations). On the contrary, anything which decreases the refractory period, such as non-depolarizing muscle relaxants, will tend to increase the evoked response to paired stimuli (unpublished observations). These effects will interact with other effects such as neuromuscular blockade and posttetanic facilitation at the neuromuscular junction. Therefore, if the Block-Aid Monitor is used as a research stimulator one cannot interpret the significance of changes in "twitch" tension. For example, after tetanus the depression of the "twitch" seen when using the Block-Aid Monitor may partially or completely mask an underlying posttetanic facilitation.

### Conclusion

The Block-Aid Monitor produces a paired stimulus. Since the interval between this pair is of the same order of magnitude as the neuromuscular refractory period, factors which alter this refractory period, in addition to factors that alter the degree of neuromuscular

blockade, may increase or decrease the evoked twitch tension. It is for this reason that the Block-Aid Monitor should not be used in place of a conventional laboratory stimulator for the study of neuromuscular transmission.

### References

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### Drugs

**CONVULSIONS DURING LIDOCAINE** Euphoria, confusion, petit and grand mal convulsions, and respiratory arrest associated with infusion of lidocaine hydrochloride occurred in a patient with myocardial infarction. The neurologic complications caused catastrophic deterioration of the patient's condition. The increasing use of lidocaine intravenously to treat ventricular arrhythmias makes it advisable that physicians become acquainted with the early neurologic symptoms and signs of lidocaine toxicity. (Crampton, R. S., and Oriscello, R. G.: *Petit and Grand Mal Convulsions During Lidocaine Hydrochloride Treatment of Ventricular Tachycardia*, *J.A.M.A.* 204: 201 (April) 1968.) **ABSTRACTOR'S COMMENT:** This abstractor has seen two similar cases of convulsions following the use of lidocaine treatment of ventricular arrhythmias, and suspects that this experience is being observed frequently across the country.