

sible mechanisms for this response: muscle spindle stimulation; or, antidromal axonal repetitive firing, starting at an adjacent presynaptic membrane. After demonstrating that muscle spindles are not concerned in fasciculations,⁶ Wahling concluded that retrograde stimulation of presynaptic terminals is the most probable mechanism.⁷ Therefore, a logical explanation for the antifasciculatory effect of local anesthetic drugs is a presynaptic site of action. This appears to be the case, since small doses of local anesthetics diminish the presynaptic release of acetylcholine⁸ and block repetitive presynaptic stimulation in doses otherwise without effect on the postjunctional membrane.⁹ In other words, antidromic activation of the nerve terminals (and consequently muscle fasciculations) is more susceptible to depression by local anesthetics than orthodromic postjunctional transmission.

Since there are at least seven possible sites of action of local anesthetics on the myoneural junction, we would agree with Dr. de Jong that further study of the myoneural properties of local anesthetic drugs is certainly required.

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Anti-Analgesia

To the Editor:—I was very interested in your excellent and timely Editorial on the problem of pain, analgesia, and anti-analgesia. You rightly stress that some of the difficulties in this subject are semantic in origin, and in this context I wonder if you would allow me to make one small comment. You say that the term "anti-analgesia" is inappropriate since the term only describes a laboratory observation limited to tibial pain thresholds, and you suggest that "hyperalgesia" would be a better description of the effects of barbiturates. I have entirely failed to find any evidence that the barbiturates increase the appreciation of painful stimuli unless there is already some analgesia produced by a drug or some other means. The barbiturates, therefore, seem to

have an antagonistic effect on the analgesic effects of other agents and it is for this reason that they have been described as anti-analgesic.

This was a new concept so a neologism seemed appropriate. I, therefore, consulted the Department of English (British English) in this University as to whether the "i" of anti should be elided, and it was on their advice that I decided on the term "antanalgesia" which you deem to be pretentious. I wonder what the term pretends other than to be a description of an observed phenomenon.

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