

LETTERS TO THE EDITOR

The mole percentage of glycol increased as the hexadecyl alcohol was reacted with increasing amounts of ethylene oxide. This increase may be due to the presence of traces of water in the ethylene oxide.

Hm₂₄ corresponds to Cetomacrogol 1000, and the procedure may be used to determine the polyoxyethylene glycol present in this material.

I thank Miss M. Buchanan for technical assistance.

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Analeptic Activity of Tremor-producing Amino-Alcohols

SIR,—Ahmed, Marshall and Shepherd (1958) described a series of amino-alcohols capable of inducing tremor when injected into mice. In higher doses, these compounds produced convulsions similar to those of picrotoxin, and consequently two of the compounds have now been tested for analeptic activity against pentobarbitone anaesthesia by the mouse-awakening test of Goodwin and Marshall (1945).

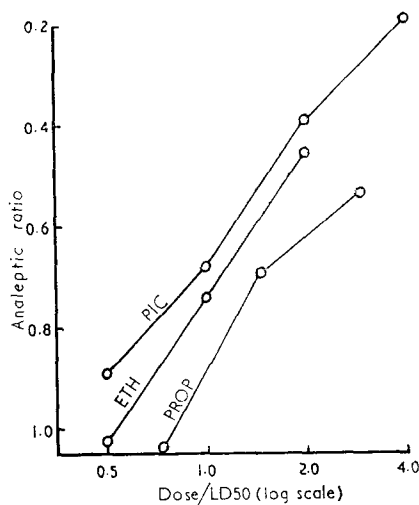


Fig. 1. Awakening time for mice under pentobarbitone anaesthesia. Analeptic ratio = median awakening time for mice receiving analeptic/median awakening time for controls.
PIC = picrotoxin (from Goodwin and Marshall, 1945);
ETH = 1,1,2-triphenyl-2-amino-ethanol;
PROP = 1,1,3-triphenyl-3-amino-propan-1-ol.

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The compounds chosen were 1,1,3-triphenyl-3-amino-propan-1-ol (PROP), the most active of the series in producing tremor, and 1,1,2-triphenyl-2-amino-ethanol (ETH), which had about one half the tremor producing activity of PROP. The median lethal doses (LD50) of ETH and PROP when injected intravenously into mice were respectively 24.5 and 17.5 mg./kg., compared with 4.5 mg./kg. for picrotoxin (Goodwin and Marshall, 1945). In Fig. 1 the analeptic potency, expressed as the analeptic ratio is plotted against log dose as a ratio of the LD50, and the curves for the two amino-alcohols are compared with that obtained for picrotoxin by Goodwin and Marshall (1945).

The analeptic potency of ETH and PROP was of the opposite order to their tremor producing potencies, ETH having about 80 per cent and PROP about 50 per cent of the activity of picrotoxin. The close parallelism between the curves for the amino-alcohols and for picrotoxin suggests a similar mechanism of action in antagonising barbiturate anaesthesia. The amino-alcohols also resemble picrotoxin in that the analeptic effect appears only in doses equal to or exceeding the intravenous median lethal dose.

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