

The Use of Curare in General Anesthesia

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Every Anesthetist has wished

at times that he might be able to produce rapid and complete muscular relaxation in ^{resistant} patients under general anesthesia. This is a preliminary report on the clinical use of a drug which will ^{produce} this kind of relaxation, temporarily and apparently quite harmlessly.

The physiological action of curare as an interruptor of the neuromuscular mechanism has long been recognized, and ~~for~~ its best known practical applications have been by ~~the~~ South American Indians as an arrow poison ^{and in the physiological laboratory}. The crude curare of the South American forests contains numerous toxic substances, but it has been possible so to refine the ~~crude~~ drug that the cardiac and respiratory depressant ^{elements} are removed and only the "pure" curare effect remains.

For several years this purified Curare has been used experimentally in psychiatric hospitals to prevent traumatic complications in convulsive ~~the ~~muscles~~ convulsions produced by~~ metrazol shock therapy shock therapy. Bennett⁽¹⁾, Gray⁽²⁾ and others have reported on the efficacy and harmlessness of curare when used for this purpose in quite a large number of patients.

In January 1942, at the suggestion of Dr. L. H. Wright, we began using Intocostim (Curare, Squibb) in order to increase skeletal muscular ~~the~~ relaxation in patients under general anesthesia. So far we have ~~administered~~^{given} it to --- patients and in each case there has been rapid and complete muscular relaxation which develops within one minute after intravenous injection of the drug and gradually disappears in from ten to fifteen minutes. In none of our patients has there been any

serious depressing effect on respiration
pulse or blood pressure, and there
was no demonstrable ~~after~~ effect
post-operative effect of any kind.

Apparently the drug is very rapidly
broken down and excreted almost as
rapidly as it ~~is~~ ^{acts}, altho there is
some evidence ~~from~~ ^{of the} psychiatric experience
that patients who are given a second
injection on the same day require a
smaller dose to produce the physiological
effect.

We ~~have~~ administer the Intocostin
intravenously with a dosage of 10 to 15 mg.
per 20 lbs. of body weight. This ~~means~~
~~a dose of~~ Intocostin is prepared in
solution containing 20 mg. of the ~~active~~ ^{active}
curare substance per cc., so that
an average adult dose is 4 to 5 cc.
We have not given to any one patient
more than 5 cc., and we make the
injection rather rapidly, in about a minute.
~~All our~~ ~~data~~ It has not been

References

1. Bennett, A.E.: Preventing traumatic complications in convulsive shock therapy by curare.
JAMA., 114:322, Jan 27, 1940
2. Gray, R.W., Spadling, F.L., and Fechner, A.H.: The use of curare in modifying metrazol therapy. Psych. Quart. 15:159 (Jan) 1941.