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CURARE

(Encyclopaedia Britannica)

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CURARE (obsoletely and/or primitively: curari, wourara, wourari, wourali, urari, curara, urirarery, etc.): a non-specific term used by certain South American Indians to designate a group of varying but related arrow-poisons; it is now accepted in pharmacognosy and medicine as designating specifically any form of clinically adequate curare and especially in the United States that originally discovered by Gill, 1938. The crude drug is a resinous appearing, dark-brown to black mass of a sticky to hard consistency and has an aromatic, tarry odor. It is frequently prepared, primitively, as a decoction (though often, also, as a cold concoction). The types of curare most often studied have each contained several ingredients, variously grouped, from: -A- (of primary importance) Loganiaceae (*Strychnos* spp.); Menispermaceae (*Chondrodendron*, *Cissampelos*, *Sciadotenia*, *Telitoxicus*, *Elissarrhena*, *Anomospermum* spp., etc.) and -B- (of secondary, and even rare, use) Piperaceae (*Piper* spp.); Annonaceae (*Annona*); Leguminosae (*Lonchocarpus*); Rutaceae (*Erythrochiton*); Moraceae (*Ficus*); Rubiaceae (*Psychotria*); Solanaceae (*Capsicum*); Aristolochiaceae (*Aristolochia* spp.).

Different curares contain one or more of the following complex basic alkaloids: curin(s), curarine, tubo-curarine, para-curarine, protocurarine, the recently isolated phenolic alkaloids, protocuradine and neo-protocuradine (King), and others. The isolation and physiologic evaluation of the constituent alkaloids of curare have been carried on since the days of Claude Bernard (q.v.), but -- until the recent discovery of a source of unvary-

ing, clinically adequate curare, amenable to biologic standardization -- this work through necessity was based on small, unduplicatable batches which had been brought out to civilization, (and which were unscientifically classified according to the kind of primitive container used by the Indians for the storage of the finished material, i.e. "pot" curare, "tube" curare, and "calabash" (gourd) curare).

The present clinically adequate drug induces an ideal curarization: i.e. the artificial induction of any clinically desired degree of flaccidity in all striated muscles, but -- by means of refinements in the drug itself and a carefully controlled technique of administration -- without giving rise to respiratory embarrassment or other unwanted side-reactions. This ideally controlled curarization, ranging from a hardly perceptible degree to complete immobility, is now experimentally employed in the symptomatic relief and treatment of spastic paralysis entities (by reducing to normal the tonus of hyperinnervated muscles), in the reduction of fractures and dislocations (by eliminating muscle pull during setting or reduction,) and in other fields where a state of profound muscular relaxation or even immobility is desirable, as in oral intubation, and, with anesthesia, as a profound relaxant in certain types of surgery. Its most important and widely accepted use, however, is as a vital adjunct in the shock-therapy treatment and cure of schizophrenia (dementia praecox), and various affective mental disorders, the manic-depressive psychoses, especially involutional melancholia (Bennett, Menninger, Woolley, Stewart, etc.). The newly-developed, biologically

standardized curare (McIntyre) re-established shock-therapy (insulin, metrazol or electro-) when the latter was commencing to meet with the disapproval of psychiatric medicine owing to vertebral fractures and other dangerous traumatic complications resulting from its use. The immobility of profound curarisation adequately prevents all trauma during shock therapy.

(R.C.G.)

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