ANESTHESIOLOGY REFLECTIONS FROM THE WOOD LIBRARY-MUSEUM

From Fish Poison to Merck Picrotoxin



For countless centuries, many fishermen in South and Southeast Asia used a stupefying fish poison derived from the seeds of the fishberry shrub (Anamirta cocculus). Picrotoxin, the active ingredient of fishberry seeds, acts as a noncompetitive $\mathsf{GABA}_{\mathsf{A}}$ receptor antagonist. A neurostimulant and occasional convulsant, picrotoxin can block chloride conductance enhanced by $\mathsf{GABA}_{\mathsf{A}}$ receptor agonists such as propofol and barbiturates. Thus, picrotoxin has been employed to investigate anesthetic mechanisms of action at the $\mathsf{GABA}_{\mathsf{A}}$ receptor, as well as used as an antidote for barbiturate toxicity. Manufactured by Merck in Germany, the bottle of picrotoxin (above) is now part of the collection of the Wood Library-Museum. (Copyright © the American Society of Anesthesiologists, Inc.)

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