

ANESTHESIOLOGY REFLECTIONS FROM THE WOOD LIBRARY-MUSEUM

Monkshoods: Heart-stopping Neurotoxins behind Hanaoka's *Mafutsusan* (Year 1804, Part 2)



Widely regarded as the source for the deadliest Himalayan arrow poison, “monkshoods” (*left*) have flowers which resemble a monk’s hood or cowl (*right*). The deadly Blue Aconite is a monkshood with blue flowers, the color of which was likely reflected in the partially swallowed poison lodged eternally in “blue-throated Shiva,” Hinduism’s “God of All Poisons.” For mortals, just touching aconite to the gums might simultaneously alleviate a toothache and numb the fingers and mouth. Beyond their neurotoxicity, such species of the *Aconitum* genus are cardiotoxic and can slow the heart rate to a standstill—a useful attribute when poisoning wolves (“Wolfsbane” is another aconitic nickname). To minimize patient mortality, Ayurvedic physicians typically soaked such *Aconitum* species in the urine or milk of sacred cows in order to weaken the poison. For pioneers of anesthesia such as China’s Hua Tuo (c. 140–c. 208) and Japan’s Seishū Hanaoka (1760–1835), the numbing aconitine of monkshoods provided the “pain dulling” portion of a primitive balanced anesthetic. (Copyright © the American Society of Anesthesiologists, Inc.)

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