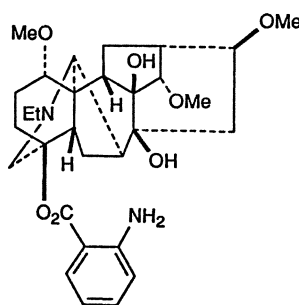
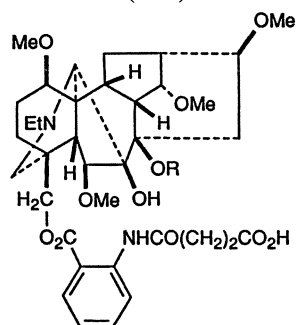


Puberanine (3-70)



Puberanidine (3-71)

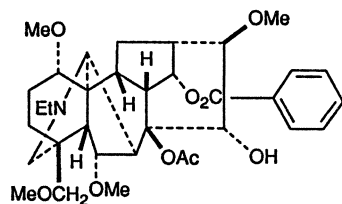


Puberaconitine (3-72): R = H

Puberaconitidine (3-73): R = CH₃

3.2.3.17 *Aconitum pendulum*

Three known alkaloids, hypaconitine, 3-acetylaconitine, and aconitine, and a new alkaloid, penduline (3-74), were isolated from *A. pendulum*. Penduline was identified as 3,13-dideoxyaconitine [54].



Penduline (3-74)

3.2.3.18 *Aconitum forestii*

Thus far, 10 alkaloids have been isolated from *A. forestii*. The main alkaloid foresaconitine (3-39), a new alkaloid of the aconitine type, was isolated and structurally identified. It was independently isolated from *A. vilmorrianum* and named vilmorrianine C [55]. Besides foresaconitine six other alkaloids were isolated, including five known alkaloids, crassicauline A, yunaconitine, chasmaconitine, aconosine, and cammaconine (3-75), and a new alkaloid, liwaconitine (3-76), a C₁₉ diterpene alkaloid of the aconitine type containing two p-anisoyl moieties [56, 57]. Further studies revealed three new alkaloids, forestine (3-77), foresticine (3-78) [58], and 8-deacetylyunaconitine [59], which were structurally characterized by spectroscopy.