Vatsanabha (Aconitum Ferox): From Visha To Amrita

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Aconitum ferox (vatsanabha) is one of the deadly poison in Ayurveda. It is categorized in mahavisha varg in all Ayurvedic texts. But as mentioned by Acharya Carak that even poison in small amount acts like a nectar. So, this poison also act as a beneficial medicine in various ailments of the body. Various studies have been made which proves what had been told about vatsanabha in Ayurvedic texts that it is anaesthetic, antiarthritic, deobstruent, diaphoretic, diuretic, sedative, stimulant. Here along with its therapeutic uses various studies are reviewed.

Introduction

Aconitum known as aconite, monkshood, wolfsbane, leopard's bane, women's bane, Devil's helmet or blue rocket. The root of aconitum ferox is commonly distinguished as Nepal or Indian Aconite. It is also known in the Indian bazaars under the name of Bish or Bikh, although, according to Hooker and Thomson, the roots of four other species of Aconitum are also collected indiscriminately in the Himalayas under the same name, namely, A. uncinatum, L., A. lucidum, H.f.et Th., A. palmatum, Don., and A. Napellus, L. It seems clear, however, that Bish is chiefly obtained from A. ferox, Wallich.


Description - Perennial erect herb growing up to 2 m in height; roots look like the navel of children; leaves alternate, simple, rounded or oval, may be palmately 5-lobed; flowers borne on branched racemes, bracts and bracteoles present, large helmet-type, helmet vaulted with short sharp beak, pale dirty blue in colour, zygomorphic, floral parts arranged spirally on an elongated receptacle; follicles erect, usually densely villose, sometimes glabrous. Phenology: Flowering and Fruiting: July-November. Distribution: Temperate to alpine regions of the Himalaya in the altitude of 3300-5000 m.

History

In the Shushruta samhita, Aconitum ferox is referred to as "vatsanabha." Today, Aconitum chasmanthum is usually sold under the name "vatsanabha". In the tenth century, the Persian physician Alheroo described the plant under the name bish. Europeans first became aware of Aconitum ferox in the nineteenth century during journeys to Nepal.
During the nineteenth century, there was a thriving trade in the root tubers of Aconitum ferox, which were brought from Lhasa via Le (Mustang) to Ladakh (Laufer 1991,57).

**Constituents:**
The tuber of *Vatsanabha* contains 0.4–0.8% diterpene alkaloids and the concentration of aconite in the fresh plant is between 0.3% and 2.0% in tubers and 0.2% and 1.2% in the leaves. The highest concentration of aconite is found in the winter. The major alkaloids are aconitine, psuedaconitine, bikhaconitine, diacetyl psuedaconitine, aconine, picroaconine, veratry pseudaconitine, chamaconitine, veratryl gama aconine, and di-Ac–Y-aconitine. Its major alkaloid aconitine has the chemical formula C\textsubscript{34}H\textsubscript{47}NO\textsubscript{11}, and is soluble in chloroform or benzene, slightly in alcohol or ether, and only very slightly in water. It is a neurotoxin that opens TTX-sensitive Na\textsuperscript{+} channels in the heart and other tissues, and is used for creating models of cardiac arrhythmia.

**Purification of vatsanabha**
Various processes of its purification are given in Ayurvedic texts e.g. by placing it in cow’s urine for three consecutive days, or by boiling it in cow’s milk or goat’s milk. Though the drug is poisonous and has a depressant action on the heart and associated organs, after mitigation or purification, it has marked stimulant action on these organs as shown by experiments. The crude root contains about 1.4 per cent of total alkaloids, whereas the root treated with cow’s urine contains only 1.27 per cent. Treatment with cow’s urine and exposure to sunlight have brought about a partial change of the toxic alkaloids aconitine and psuedaconitine into the far less poisonous substances bezoyl-aconine and veratroyl-aconine (K.C. Bose).

According to an article by the Indian scientists Thorat and Dahanukar, "Crude aconite is an extremely lethal substance. However, the science of Ayurveda looks upon aconite as a therapeutic entity. Crude aconite is always processed i.e. it undergoes 'samskaras' before being utilized in the Ayurvedic formulations. This study was undertaken in mice, to ascertain whether 'processed' aconite is less toxic as compared to the crude or unprocessed one. It was seen that crude aconite was significantly toxic to mice (100% mortality at a dose of 2.6 mg/mouse) whereas the fully processed aconite was absolutely non-toxic (no mortality at a dose even 8 times as high as that of crude aconite). Further, all the steps in the processing were essential for complete detoxification."

**Physiological Action.**
- **Externally and Locally.**
  Applied to mucous membranes or to the skin for any length of time, aconite first stimulates and then depresses the ends of the sensory nerves, producing respectively tingling, numbness, and local anesthesia.

- **Internally.**
  Under normal conditions of the stomach aconite may act upon that organ as a sedative, augmenting its secretions. Large doses may occasionally cause pain, nausea, and vomiting. The action of aconitine on the circulation is due an initial stimulation of the cardio-inhibitory centre in the medulla oblongata (at the root of the vagus nerves), and later to a directly toxic influence on the nerve-ganglia and muscular fibres of the heart itself.
  The antipyretic action with considerable doses of aconite display is not specific but is the result of its influence on the circulation and respiration and of its slight diaphoretic action.
Therapeutic uses-
Aconitum ferox is also known as smanchen, "great medicine"; the crushed roots, mixed with bezoar stones, are used as a universal antidote. The root is also used to treat malignant tumors (Laufner 1991, 57). In Nepalese folk medicine, blue aconite is used to treat leprosy, cholera, and rheumatism (Manandhar 1980, 7*).

Aconite has long been used in the traditional medicine of Asia (India, China). In Ayurveda the herb is used to increase pitta (fire, bile) dosha and to enhance penetration in small doses.

Aconite is an exceedingly efficacious remedy in many febrile diseases, particularly the sthenic fevers of children and those fevers resulting from inflammation, such as tonsillitis, laryngitis, pharyngitis, quinsy, etc.

Aconite is alleged to be a decided antipyretic, the reduction of temperature being due to various causes:

1. The slowing of the circulation, diminishing the metabolism;
2. The peripheral action of aconite, causing dilatation of the cutaneous blood-vessels;
3. The depressing action of the drug upon all muscle-tissue.

The drug seems to exert a peculiarly beneficial influence on mucous membranes, all acute inflammatory conditions of the throat, bronchial tubes, or intestinal canal - characterized by fever, a small, wiry pulse, and rapid cardiac action - being greatly improved by the remedy.

It is equally valuable in the first stage of pneumonia and in pleurisy, and is an invaluable adjunct to opium in the treatment of peritonitis.

Whilst absolutely contra-indicated in all cases of valvular disease, it is of value in cases of cardiac hypertrophy with over-action. But the practitioner must be assured that neither valvular lesion nor degeneration of the myocardium is present. In sudden congestions from exposure to cold and wet, with consequent chills, headache, stoppage of menstruation, etc., the prompt use of aconite will generally restore the circulatory equilibrium and bring back the flow, averting a serious illness.

Aconite has been favourably recommended in the acute stages of cerebrospinal meningitis and as a cardiac sedative in aneurism.

Root is used in the Mrutyunjaya rasa (used to treat the fever caused by deranged vayu, i.e., wind, sannipatika jvara, i.e., remittent fever, hingulesware rasa, anandabhairav, agnitudi vati, etc. Vatsanabha has been used in medicine from a very remote period. It is regarded as healing and stimulant. It is used in a great variety of affections, but is specially recommended in fever, cephalalgia, affections of throat, dyspepsia and rheumatism.

The plant is used in leprosy (Tiwari et al., 1979). The root finds use in cold, neuralgia and inflammation (Tewari et al., 1990); in inflammatory condition of throat, fever, indigestion, in leprosy and stimulates secretion of bile (Malhotra and Buladi, 1984; Prakash and Singh, 2000-2001).

The root is used in Sannipata (tridoshik discordance), vatakaphaj jwara (fever due to vitiation of vata and kapha), vataroga (diseases of nervous system), jvaratisara (fever associated with diarrhoea) and kantharoga (diseases of throat). (A.P.I. 1999). It is of undoubted value as a local anodyne in sciatica and neuralgia, especially in ordinary facial or trigeminal neuralgia.

In the Taleef – shireef it is directed never to be given alone, but mixed with several other drugs, it is recommended in a variety of diseases, as cholera, intermittent fevers, toothache, snake bites and especially in rheumatism externally applied.

Aconite tincture is commonly used as one of many ingredients in cough syrups. The main alkaloid, can be used in pure form (in 0.1 mg granules) to treat facial neuralgia.

Yastimadhu 1gm and aconite 250mg are pounded finely and put into the nostril at the dose of a mustard seed. This recipe reduces all types of headache.

The paste of the root as an external application relieves pain due to scorpion bite.

Powder of pippali, pippalimool and vatsanabha should be taken in equal quantity mixed with honey. Externally applied in the form of ointment mixed with lard, it is often efficacious in relieving nervous and rheumatic pains.

It is very effective medicine in various diseases, acting as a narcotic sedative, regarding as healing and stimulant, useful in fever, cephalalgia, affections of throat, dyspepsia and rheumatism. It is much used as an external application, the root being formed into a paste and spread upon the skin in neuralgia, boils etc. internally it is chiefly used in the treatment of chronic intermittent fevers.

Very sweet, hot, removes vata and kapha alleviates inflammatory throat complaints and fever, stimulate the secretion of bile, a general remover of internal inflammation of the lungs, intestines, joints etc. the drug is chiefly employed in India in the treatment of leprosy, fever, cholera and rheumatism.

Vatsanabha is one of the ingredients of Aindra Rasayana.
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