Yunnan Pai Yao

Other names for this Chinese Herb Combination: Yun(n)an Bai Yao, Yun(n)an Paiyao, Yun(n)an Baiyao, Yun(n)an Paiyou, Yun(n)an Payao, Yun(n)an Piao, Yun(n)an Paiao, Hun(n)an Paiyao

Within the field of Complementary/Alternative Veterinary Medicine, herbology is one branch. Chinese Herbology, part of Traditional Chinese Medicine, is a sub-category of veterinary herbology. With the growing interest in complementary and alternative forms of veterinary medicine, veterinary herbology is gaining attention. A Chinese herb called **yunnan paiyao** is commonly utilized to stop bleeding, promote wound healing and relieve pain, not only by veterinarians who practice alternative. Complementary veterinary medicine (CAVM), but also by many veterinarians who specialize in emergency medicine and critical care.

The exact herbal formula for yunnan baiyao is not completely clear. This 'highly guarded secret' contains pseudoginseng/san qi/tienchi (*Panax pseudoginseng or Radix notoginseng*), chinese yam (*Dioscorea opposita*), yam rhizome (*Dioscorea hypolglauca*), sweet geranium (*Erodium stephanianum*) and galangal rhizome (*Alpinia officinarum*) in potato starch base (Polesuk et al 1973). Arasaponin A/B and dencichine, reported to be primary components of yunnan paiyao, have anti-inflammatory effects (Yang 1986).

How does Yunnan Paiyao work?

Yunnan paiyao is a Chinese herb used to **stop bleeding or minimize blood loss** in a variety of species (Hsu 1974, Fratkin 1986, Schwartz 1994, Schoen 2001). This herb was historically carried by foreign soldiers as a traumatic hemostatic agent (Polesuk 1973). It also has long been used by those who practice the martial arts to help speed healing of bruises and soft tissue injuries.

Many **studies have confirmed** the ability of yunnan paiyao to improve the blood's ability to clot. The medical term for this is **improved hemostasis**. A dose-related **shortening of clotting time** was seen within 30 minutes after **oral administration** in rabbits, and these effects lasted for a minimum of four hours (Ogle 1977). Applying the herbal powder directly to wounds **decreased the bleeding times** in rats, and **decreased the clotting times** in rabbit and human blood (Ogle 1976). Clotting tests using blood from cattle demonstrated a **reduction in clotting time (faster clotting)** associated with the use of yunnan paiyao (Monke 2000). Rat **platelets have been shown to release clotting granules** in a dose-related fashion in the presence of filtered extracts of yunnan paiyao (Chew, 1977). This action during platelet release has long been recognized as one of the mechanisms of action of platelet function inducing blood coagulation (Mustard 1970). Yunnan paiyao is also thought to have **antibacterial and anti-inflammatory** properties (Yang 1986, Wang 1994, Schwartz 1994), although these claims are debated (Polesuk 1973). In terms of Traditional Chinese Medicine (TCM), yunnan paiyao stops bleeding by removing or dispersing stagnant blood, which blocks vessels and obstructs the normal path of blood flow. It also tonifies, invigorates and regulates blood via the Liver (Schoen 2000). The oral and topical administration of yunnan paiyao to rats and rabbits has not been associated with any adverse side effects in laboratory studies (Ogle 1977). However, long-term effects of chronic yunnan paiyao use have not been described in Western medical terms. Yunnan paiyao has been given to thousands of dogs over several decades by veterinarians who practice CAVM, with no reported adverse effects (Ogle 1977). The chronic use of yunnan paiyao is not recommended, as it could exhaust the "fire" and yin (balancing yang) in the individual. These issues are usually not of concern when Yunnan paiyao is prescribed for dogs with a cancer called hemangiosarcoma, which is usually terminal. In those cases, stopping bleeding in the short run is the most important thing.

Other proposed mechanisms for the hemostatic (pro-clotting) effects of yunnan paiyao include **constriction of the small blood vessels** (Ogle 1976, Ogle 1977), **induction of clotting by the starches** in the herbs (Ogle 1976, Ogle 1977), or a **induction of clotting by calcium** (Ogle 1976). The high levels of starch and calcium may partially account for the hemostatic (blood clotting) effects of yunnan paiyao, especially when applied topically to surface wounds. To simulate this action of yunnan paiyao, the effect of starch and starch plus calcium solutions were tested on bleeding times and clotting times in two studies. Neither topically administered starch (Ogle 1976), nor orally administered starch (Olge 1977), at an equivalent dose (by weight), caused a decrease in bleeding times in rats. Topically administered starch plus calcium did shorten the bleeding time in rats (Ogle 1976). In the same study, **topically administered yunnan paiyao caused a greater shortening in bleeding time compared to topical administration of starch plus calcium** (Ogle 1976). So there is something special about the herb that can not yet be explained by analyzing its ingredients.

Also, yunnan paiyao significantly shortened the clotting time in rabbit blood and human blood when compared to starch or starch plus calcium (Ogle 1976). Therefore, it is unlikely that the high levels of starch and calcium, contained in commercially available yunnan paiyao, significantly account for the hemostatic actions when administered orally or topically. Although the positive hemostatic effects of yunnan paiyao are well documented, the exact mechanism remains unclear.

How is Yunnan Paiyao used?

Yunnan paiyao has been used both **orally and topically**, in everything from birds to elephants. It has been useful for internal and external bleeding tumors, sheared nails/hooves, surgical bleeds, nose bleeds/nasal procedures, hemorrhage (bleeding) of the stomach and intestines, trauma to the abdomen (belly), bumblefoot in birds, VWD and/or thrombocytopenic patients, aural hematomas, oral/dental surgery and spays done while the dog is in heat.

As with many herbal therapies, **dose ranges of yunnan paiyao** are **poorly defined** and **widely variable**. The following dose recommendations have been gathered from a variety of sources, including VIN postings, the CAVM list discussions and continuing education talks:

Dog: topical: open capsule and sprinkle on superficial wounds, bleeding tumors, etc.
<30 pounds = 1 capsule by mouth twice a day
30-60 pounds = 2 capsules by mouth twice a day
>60 pounds = 2 capsules by mouth three times a day

Cat: topical: open capsule and sprinkle on superficial wounds, bleeding tumors, etc.
1 capsule by mouth once a day

Use these doses for acute bleeding. Can cut dose in half or less for prevention of bleeding.

Yunnan paiyao takes effect within 30 minutes after oral administration in rabbits. These effects lasted for a minimum of four hours.

How do I get Yunnan Paiyao?

Yunnan paiyao is a widely available herb, and can be found in health food stores, in Asian markets and in the Internet (www.bestchinesemedicines.com). When purchasing Chinese herbal formulas, it is important to buy from reputable retailers; the quality and contents of herbal formulas can vary greatly and heavy metal contamination is a very real possibility.

Yunnan paiyao is an **inexpensive** herb. It is available in foil sheets of 16 gelatin capsules (250mg each), with a variable number of sheets in a box. One sheet usually costs less than US$5 from most retailers. It is also available in 4 gm bottles of loose powder, which are equivalent to one foil sheet of 16 capsules. Each 4 gm bottle or each foil sheet of 16 capsules comes with one small, red "safety pill". This very potent form of yunnan is equivalent to one 4 gm bottle or 16 capsules of yunnan paiyao, and should be given when bleeding is especially severe.

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