

Traditional Medicine in Vietnam

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Introduction

Traditional medicine (TM)/folk medicine (FM) has had a profound impact in Vietnam, with it being a mainstream medical practice, though which has been slowly phasing out, in the country and TM/FM coexisting with modern western medicine. Within Traditional medicinal practices in Vietnam, there are two kinds of Traditional medicine - *Thuốc Nam* i.e., Southern Herbology/medicine and *Thuốc Bắc*, i.e., Northern Herbology/medicine. The former is indigenous Vietnamese traditional medicine which developed from Vietnamese folk knowledge, whilst the latter is traditional Chinese medicine introduced from centuries of medical exchanges between various Chinese and Vietnamese dynasties. (Adoriso S, et al., 2016) This will cover both practices as one.

Current usage

Traditional Vietnamese Medicine (TVM), in the modern age, is a mainstream practice within modern Vietnamese medicinal practice, with pharmacology programs by many Vietnamese Universities and colleges offering traditional medicine and pharmacognosy as one of the 5 optional specialization fields suggested by the Ministry of Education and Training (Vo, Thi-Ha, et. Al, 2013).

Outside of Vietnam, TVM is still practiced by a significant minority of overseas Vietnamese community and diaspora in many countries e.g., in a 2016 study on Vietnamese outpatients in Boston, Massachusetts, 68% reported using Traditional Vietnamese Medicine, with most being old and more than half being female and immigrants/residents (living for < 13 years) (Nguyen, Long T., et al., 2016).

Herbs and traditional cure methods

Herbs

Like most Traditional medicine, herbology is an integral part of TVM. Table 1 below shows several herbs (specific parts) used, active ingredients, and its treatments in TVM.

Non herbology-based traditional medicine also exists in TVM, with an example being frog skin. Frog skin is used in TVM as a biological dressing and as a means of encouragement of wound-healing (Mashreghi, Mohammad, et al., 2013). Within TVM, there are also many practices and methods to treat an individual such as - "Wind scraping (*Cạo gió*)", "Cupping (*Giác hơi*)", and "bloodletting (*Cắt lể*)" (Nguyen LT et al., 2016).

<i>Herb</i>	<i>Part(s) of the plant used</i>	<i>Active ingredient(s)</i>	<i>Traditional medicine treatment in TVM</i>
Stephania rotunda Lour. (Menispermaceae) (Chi Bình vôi) [2]	Stems, leaves, tubers	Cepharanthine (alkaloids), xylopinine (protoberberine alkaloids), cepharamine (Hasubanan alkaloids)	Asthma, headaches, fever, diarrhoea.
Paederia foetida (Skunk / stinkvine) (Mơ tròn) [14]	Roots, leaves, barks, fruits	Iridoids, flavonoids, volatile oil	Inflammation, haemorrhoid piles, diarrhea
Pseuderanthemum palatiferum (Hoàn ngọc trắng) [12]	Leaves	Lignins Epifriedelanol, lupeol, lupenone, botulin, pomolic acid (triterpenes) Asperglauclide (Dipeptide)	Inflammatory diseases
Crinum latifolium (Trinh nữ hoàng cung) [7]	Leaves (extracts)	Flavonoids, Alkaloids (non-specified)	Anti-Cancer (Prostate cancer and lymphoma) and antiviral activity
Gynostemma pentaphyllum (Giảo cổ lam) [4]	Leaves, stems	Flavonoids (non-specified), Saponin	Anti-diabetic activity
Aconitum genus (Chi Ô đầu) [11]	Leaves, root, tubers	Alkaloids, Flavonoids, Free fatty acids, polysaccharides (non-specified)	Rheumatic fever, joint pain, endocrinal disorders

Table 1: Herbs in TVM and their traditional medicine treatment.

“Wind scraping (Cạo gió)”

This is also prevalent Traditional Chinese Medicine (TCM) and is the practice of rubbing one’s skin with oils before scraping it with the side of a coin, a spoon, or the top side of the thumb’s/index finger’s nail. It is performed on the back for general malaise, back pain, and/or stomach pain, it is done in the chest in a wheel-spoke pattern for cough or chest pain, and for nausea, it is done at the jugular notch, sternum and/or the fossa above and below the clavicles. The method leaves patients with ecchymosis/red hematoma streaks which can last up to 10 days [10].

Its use as a legitimate way to remedy headaches, throat problems, and nausea are questionable at best and are not backed up by scientific and clinical evidence, as it damages skin, leading to, at best, dermatitis, burns, and haematuria, and at its most damaging, severe injuries that require skin grafts to heal [2].

“Cupping (Giác hơi)”

This is the practice that involves the use of partially vacuumed glass cups/large bamboo tubes on skin to remove “bad wind” from the body. This is done by creating vacuums inside the cup/tube before applying them to the affected area, leaving it for 5-10 minutes before being snapped off the area. It is meant to “suck out” bad wind (a belief also prevalent in Traditional Chinese Medicine) [10].

Despite some research on cupping, evidence of the effectiveness of cupping as a technique is disputed and not very strong. Scars, burns, infections, and worsening of conditions e.g., eczema, psoriasis, etc. are common side effects. Infections are also a high possibility due to the same equipment being used on different patients and can lead to the spread of bloodborne diseases e.g., hepatitis B, hepatitis C [10].

“Bloodletting (Cắt lể)”

This is the practice of making ~2-5mm long cuts on one’s skin with a shard of glass or razor blade and removing a few drops of blood from them through squeezing the areas of incision. To speed up/extra more blood in the process, boiled, hot bamboo tubes/vacuumed glass cups were put over the incisions. Bloodletting has no evidence which backs up medical use and leaves one with permanent scars

and sometimes even serious infections [10].

Impact on modern allopathy

The efficacy and efficiency of TVM is mostly not based on evidence, as suggested by the overview of a few of the practices and methods employed in TVM, which causes more harm than good. However, the Vietnamese government have supported the advancement of Scientific development in Traditional Vietnamese Medicine (Woerdenbag, HJ, et al., 2012), with the Vietnamese health care system in order to promote the scientific validation of TVM and its practices (Eriksson, L., et al., 2014). Below are several studies which have validated components of TVM and its proven and potential impact on modern allopathy.

In a study by Desgrouas, C, et al., (2014) (Desgrouas C et al., 2014), the tubers of *Stephania rotunda* contain tubers that contain alkaloids such as Cepharranthine and *Xylopinine*, which have links to the allopathic effects it has on ailments such as asthma, headache, fever, and diarrhea. Other phytochemicals have anti-plasmodial, anti-cancer, and immunomodulatory effects, with the alkaloids *Sinomenine*, *Cepharranthine*, and *l-stepholidine* having the most promising effects when tested in humans. This means that *Stephania rotunda*, specifically its alkaloids such as those listed above, could treat cancer. Alkaloids in general have anti-cancer effects, with studies proving such effects, the mechanics of which involve modulating key signalling pathways which involved in cancer cell proliferation, cancer cell cycle, and cancer cell metastasis. (Desgrouas C et al., 2014).

Pseuderanthemum palatiferum have shown to have antioxidant and anti-inflammatory properties through a study which macrophages treated with *P. palatiferum* showed decreased oxidative stress and reduced iNOS (inducible Nitric Oxide Synthase) and COX-2 protein levels. Isolated from the plant's roots, lignin, botulin, and lupeol show cytotoxic and antimicrobial activities. (Mai H et al., 2011) Other than this, in a study by Padee et al., (2010), extracts from the leaves of *P. palatiferum* samples showed a beneficial effect in hyperglycaemic rats and prevented certain complications for the diabetic rats. This means that *P. palatiferum* has a potential anti-diabetic effect on humans. (P. Padee et al., 2010).

Several studies have shown *Gynostemma pentaphyllum* have an anti-diabetic effect, backing up the use they have on TVM. In a study by Hoa, NK, et al., (2009), extracts from *G. pentaphyllum* extracts have shown a reduction in blood glucose and inhibited the increase of glucose after a glucose challenge in healthy mice. (Hoa NK et al., 2009) *G. pentaphyllum* induced an improvement of glycemia and insulin sensitivity of drug-naïve type-2 diabetes patients, a study by Huyen, V.T., (2010) finds. (Huyen V.T. et al., 2010) In another study by Huyen, V.T., (2013), *Giao co lam* tea, a traditional Vietnamese herbal tea made from *G. pentaphyllum*, has shown to improve insulin sensitivity in drug-naïve type 2 diabetes patients, showing that the traditional application of *G. pentaphyllum* has been shown to help with modern allopathy. (Huyen V.T. et al., 2013).

Frog skin, a non-herbal Traditional Vietnamese Medicine, according to Mashreghi, M, et al., (2013), has shown a significant effectiveness in promoting the wound-healing process. Skin secretions extracted from the species *Rana ridibunda* were found to be significantly effective in the promotion of the wound-healing process. When treated, it promises good potential for its clinical application in wound care. (Mashreghi M et al., 2013).

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