

A Mini-Review on Non Caffeinated Blue Tea

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ABSTRACT: *Clitoria Ternatea* is one of four herbs traditionally used as Shanka Pushpi, an Ayurvedic medicine used to promote neurological health. It shows promise in animal models for its memory enhancing effects, and has a wide spectrum of neurological benefits (anti-depression, anxiolytic, anti-pyretic) yet for these latter claims preliminary evidence suggests it isn't overly potent. Most types of popular drink like tea, coffee contain caffeine, a substance that may boost your mood, metabolism and mental and physical performance. Here are 9 side effects of too much caffeine. 1. Anxiety, 2. Insomnia 3. Digestive Issues, 4. Muscle Breakdown, 5. Addiction, 6. High Blood Pressure, 7. Rapid Heart Rate, 8. Fatigue, 9. Frequent Urination and Urgency., but the benefits of blue tea includes 1. Blue tea is a memory booster, 2. It helps relieve anxiety, 3. It helps relieve asthma, 4. It can help bring down fever, 6. It can help bring down fever, 7. It helps in the treatment of diabetes.

Keywords: *Clitoria Ternatea*, Taraxerol, Taraxerone, p-Hydroxycinnamic acid, β -sitosterol, anxiety, anxiolytic

MANUSCRIPT

The shape of flowers of the *Clitoria* plant is a reflection of its genus name. The flowers of this plant resemble in shape with human female clitoris, hence the Latin name of the genus "*Clitoria*" belongs to "clitoris". In India:

Sanskrit: Ashphota, Aparajita Saukarnika, Ardrakarni, Girikarnika, Supuspi, Mohanasini Vishadoshaghni, Shwetanama, Vishnu-Kranta, Ashwakhura.

Hindi, Beng, and Oriya: Aparajita or Aparajit.

Gug: Bismar, Garani, Koyala

Kan: Billisaiuga, Satugadagida.

Tel: Dintana, Gilarnika, Neela-ghentana, Sankhupuvvu.

Tam: Kakkanam, Kakatan, Kavachi, Kuruvilai.

Punjab: Dhanattar.

Rajasthan: Koyalri, Titlimatar.

Mar.: Gokurna

Mal.: Aral, Shankapuspam, Malai-amukki.

English: Butterfly pea, Blue pea vine, Mussel-shell climber, Pigeon wings.

Clitoria Ternatea is one of four herbs traditionally used as Shanka Pushpi, an Ayurvedic medicine used to promote neurological health.

Taxonomic hierarchy

Kingdom: Plantae

Phylum: Angiosperms

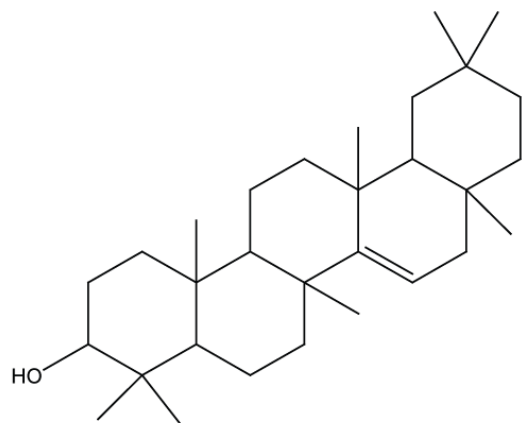
Order: Fabales

Family: Fabaceae

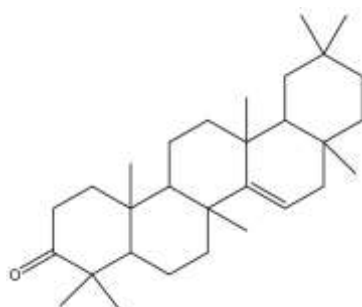
Genus: *Clitoria*

Species: *C. ternatea*

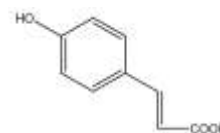
Plant can be exploited as a source of calcium in herbal drink due to its high calcium concentration. It contains antifungal proteins.
2



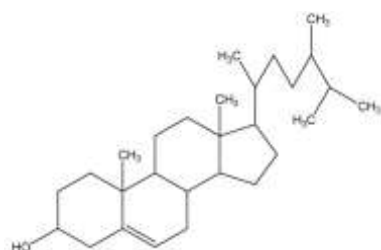
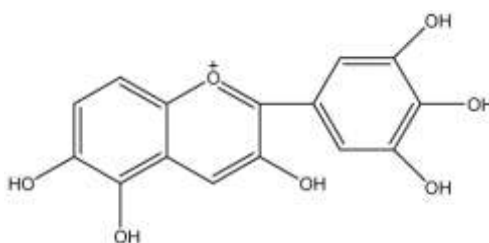
1. Taraxerol



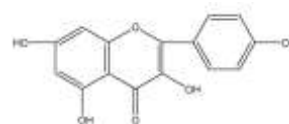
2. Taraxerone



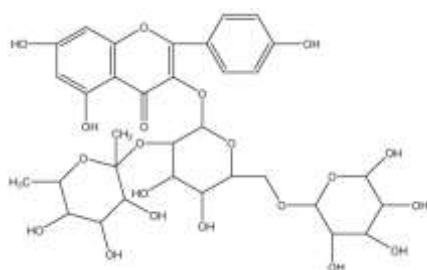
3. p-Hydroxycinnamic acid

4. β -sitosterol

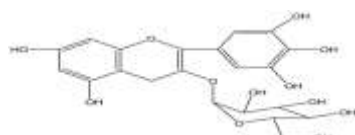
5. Delphinidin



6. Kaempferol



7. Clitorin

8. Delphinidin 3-O- β -glycoside (anthocyanins)

The above are the prime and dominantly found phytoconstituents in flowers of the Clitoria.

When the colourful (blue) antioxidant flora boiled with water served as break drink, popularly known as blue tea. floral blue tea has a sweet and earthy flavor. ³ More of the above it is non caffeinated drink, which may have overcome many side effects occurs due to frequent consumption of coffee such as

1. Anxiety : It works by blocking the effects of adenosine, a brain chemical that makes feel tired. it triggers the release of adrenaline, hormone associated with increased energy. ⁴ caffeine-induced anxiety disorder listed in the Diagnostic and Statistical Manual of Mental Disorders (DSM), which is published by the American Psychiatric Association.

2. Insomnia: Caffeine can help you stay awake during the day, but it may negatively impact your sleep quality and quantity. ⁵ Cut off your caffeine consumption by the early afternoon to avoid sleeping problems

3. Digestive Issues : Coffee's laxative effect has been attributed to the release of gastrin, a hormone the stomach produces that speeds up activity in the colon. caffeine itself also seems to stimulate bowel movements by increasing peristalsis ⁶

4. Muscle Breakdown : People may develop rhabdomyolysis, or the breakdown of damaged muscle, after they ingest large amounts of caffeine. Limit your intake to 250 mg per day if you're uncertain of your tolerance. ⁷
5. Addiction : Going without caffeine for several hours may lead to psychological or physical withdrawal symptoms in those who consume large amounts on a daily basis. ⁸
6. High Blood Pressure: Caffeine seems to raise blood pressure when consumed at high doses or prior to exercise, as well as in people who rarely consume it. But this effect may only be temporary, so it's best to monitor your response.
7. Rapid Heart Rate: Large doses of caffeine may increase heart rate or rhythm in some people. These effects appear to vary greatly from person to person. If you feel them, consider reducing your intake.
8. Fatigue: Although caffeine provides energy, it can indirectly lead to fatigue when its effects wear off. Aim for moderate caffeine intake to help minimize rebound fatigue. ¹⁰
9. Frequent Urination and Urgency: High caffeine intake has been linked to increased urinary frequency and urgency in several studies. Reducing your intake may improve these symptoms. ¹¹

The side effects of caffeine can be overcome by the introduction of blue tea.

The blue tea has the potency in following:

1. Anthelmintic activity
2. Antihistaminic activity
3. Antimicrobial activity
4. Cytotoxic activity
5. Central cholinergic activity in rats
6. Hypoglycemic Effect
7. Neurogenic potential
8. Proteolytic activities
9. Wound healing activity
10. Larvicidal activity
11. Antipyretic activity
12. Hepatoprotective activity
13. Antioxidant activity

The chemical composition of the flowers of *C. ternatea* suggest that they may have antioxidant activity. The methanol, chloroform, and petroleum ether extracts of roots of blue and white flowered varieties of *C. ternatea* (CT) were found to have hepatoprotective property. ⁹ The extracts of *C. ternatea* was tested against *P. aeruginosa*, *E. coli*, *K. pneumonia*, *B. subtilis*, *A. formicans*, *A. hydrophila* and *S. agalactiae* by the agar well diffusion method. Different extracts of *C. ternatea* showed inhibitory effects against *P. aeruginosa*, *E. coli*, *K. pneumonia*, *B. subtilis*, *A. formicans*, *A. hydrophila* and *S. agalactiae*. Ethyl acetate extracts of *C. ternatea* showed maximum of zone of inhibition against *A. formicans* (19 mm), *A. hydrophila* (20 mm), *B. subtilis* (20 mm) and *P. aeruginosa* (22 mm) next to that ethanol extract of *C. ternatea* showed *A. formicans* (19 mm) and *E. coli* (15 mm) followed by Acetone extract showed maximum zone of inhibition *S. agalactiae* (20 mm) and *K. pneumonia* (19 mm) ¹. Anthelmintic activity was found in ethanolic and aqueous extract of *C. ternatea* leaves at the dose of 100 mg/ml. ¹² Antihistaminic activity was found in the ethanolic extract of *C. ternatea* roots in dose dependent manner. Evaluation for antihistaminic activity was done using clonidine and haloperidol induced catalepsy in mice for Ethanol Extract of *C. ternatea* Root (ECTR) at doses 100, 125 and 150 mg/kg IP.

CONCLUSION:

Blue tea is a memory booster. It's anti-ageing . It's a pain reliever . It's blessing for your hair The sudden interest that blue tea has garnered can be attributed to the memory-boosting properties it is believed to have. Studies have shown that the blue pea flowers (*Clitoria ternatea*) can assist with memory and brain function as the flowers help increase Acetylcholine (a neurotransmitter). It helps relieve anxiety Studies show that a high dosage of blue pea flowers have had beneficial anxiolytic effects in animal and has

helped the body deal with stressors. It helps relieve asthma Blue tea can help give relief from cough, cold and asthma, as it acts as an expectorant. In other words, helps clear the mucus from airways, lungs and trachea. It can help bring down fever .Blue tea is believed to aid in bringing down the fever by dilating the blood vessels right beneath the skin. This would enable the air to cool the blood more easily. THE comparison study shows that the new generation blue tea have more healthier and next generation health drink which is non caffeinated.

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