

Review on Traditional Indian Herbs Punarnava & Its Health Benefits

P. A Ingalwad, V. S Veer

Department of Pharmaceutical Quality Assurance,
Shankarrao Ursal College of Pharmaceutical Sciences & Research Centre, Kharadi, Pune, Maharashtra, India

ABSTRACT

The scientific name of Punarnava is Boerhavia Diffusa Linn. According to Ayurveda, punarnava is a species of flowering plant. Maximum 25% of today's prescription drug come from plant extract. Mostly medicinal plants come from tropic. Punarnava means "Bring back to life". It is bitter in taste & has cooling effect. Punarnava root is analgesic, diuretic, laxative, anticonvulsant, expectorant. It is useful in blood impurities, anaemia, heart disease, kidney disease, asthma. It is help to treat inflammatory condition such as gout, edema, arthritis. It reduces inflammation in the body organ including heart, lungs, kidney, bones. According to Unani system of medicine, the leaves are appetizer, useful in ophthalmia, in joint pains. Seeds of punarnava are tonic expectorant, carminative, useful in lumbago, scabies.

KEYWORDS: Punarnava, Chemical constituents, Traditional uses, Health benefits- Kidney disease, Kidney stone, Jaundice, Inflammation, Eye disease, Edema, Heart disease, Cancer, Fatty liver disease, Obesity, Diabetes.

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1. INRODUCTION

Punarnava has many medicinal properties. This ayurvedic drug found throughout india. Growing to 70 centimeters in height. It produced yellow and white flower. It is found in many tropical and warm climate countries. Punarnava means "Bring back to life". It has very high medicinal value.

Boerhavia diffusa L. known as "Punarnava" and 'Hog weed' in English, belonging to the family of Nyctaginaceae.

Biological Name - Boerhaavia diffusa
Kingdom - Plantae
Division - Magnoliophyta
Class - Magnoliopsida
Order - Caryophyllales
Family - Nyctaginaceae
Genus - Boerhavia

Punarnava root is analgesic, expectorant, CNS depressant, laxative, Diuretic.

For tropical application.leaf juice is used in the eyes
Punarnava used in heart disease, edema and anemia,

PHYTOCHEMISTRY

The Punarnava plant contains a large number of compounds such as flavonoids, steroids alkaloids, lignins, triterpenoids, lipids, carbohydrates, proteins, and glycoproteins, hypoxanthine 9-Larabinofuranoside 16, ursolic acid 17, punarnavoside 18, lirodendrin 19, and a glycoprotein has a molecular weight of 16– 20 kDa have been isolated and studied in detail for their biological activity 20. This plant contains β -Ecdysone, tetracosanoic, arachidic acid, β -Sitosterol, α -2-sitosterol, palmitic acid, ester of β -sitosterol, hexacosanoic, stearic, urosilic acid, Hentriacontane, triacontanol etc. The roots and herb are rich in proteins and fats. The herb contains 15 amino acids, including six essential amino acids, & root contains 14 amino acids, including 7 essential amino acids. This plant contained large



Fig.1. Punarnava herb

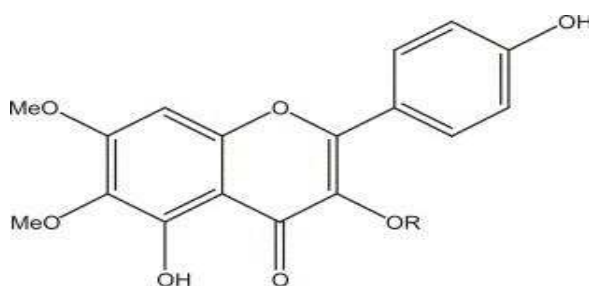
quantities of potassium nitrate. As per previous studies reported the presence of flavonoids, alkaloids, steroids, triterpenoids, lipids, lignins, carbohydrates, proteins and glycoproteins in Punarnava.

CHEMICAL CONSTITUENTS

➤	Triacontano
➤	palmitic acid ester of b-Ecdysone,
➤	b-Sitosterol
➤	a-2-sitosterol

OTHER CHEMICAL CONSTITUENTS

- Rotenoids isolated from the roots.
- It also includes boeravinones, boeravinone A, boeravinone B, boeravinone C, boeravinone D, boeravinone E and boeravinone F.
- A phenolic glycoside is present in roots & C-methyl flavone has been isolated from Punarnava roots.
- The seeds of this plant contain allantoin, fatty acids & the roots contain alkaloids.



Bd-1: R=β-D-galactopyranoside
Bd-2: R=H

Fig.2. Chemical structure of Punarnava (Boerhavia Diffusa Linn.).

TRADITIONAL USES

Punarnava leaf juice is used for eye.
It is also used to reduce edema.
It act as a diurectic.
Punarnava is useful in heart disease and anemia.
It is beneficial in treating obesity.
Punarnava is useful in treating ascites.
Punarnava is work very well in urinary system.
It work as a very good tonic as well in general debilities cases.
It is also helpful for many skin disorders.

HEALTH BENEFITS OF PUNARNAWA

Kidney disease

According to study based on traditional medicinal plant like Boerhavia. It is effective in preventing & managing ailments related to the kidney.

Boerhavia exerts nephroprotective action. It reduces fat in urine, proteins in the urine such as albuminuria & glycosuria. As per scientific study a woman suffering from kidney ailments was given Boerhavia based syrup. Purposefully bringing the creatinine & urea level in her blood to a healthy level. Her haemoglobin level had improved, so its concludes that the Boerhavia not just improve the kidney function but also improve haemoglobin level.

Punarnava is excellent anti-inflammatory & diurectic. It is used as kidney tonic. The syrup (Neeri KFT) is a potent

nephro-protective formulation, protecting kidneys from nephrotoxins, including oxidative damage induced by lead acetate," the study said

Kidney stone

Boerhavia has lithontriptic action.

Punarnava root powder is used in combination of Hajrul Yhood Pishti for remove of kidney stone.

Jaundice

Punarnava it is herbal plant is used to treat jaundice. It is very good for curing hepatitis B & C, Jaundice. Give 10-20 gm juice of its whole plant with 2-4 gm baheda powder mixed it. Give this on a regular basis. It is a very beneficial medicine for Jaundice.

Inflammation

Punarnava help to treat inflammatory conditions such as gout, edema, arthritis.

It reduces inflammation in the body organ including –Heart, Bones & joints, Lungs, Kidney.

Many women with uterine inflammation mostly during absent periods (amenorrhea) & dysmenorrhea. In that cases, Boerhavia decoction is proved beneficial. It help to reduces inflammation & give relief from uterine pain.

Eye disease

Punarnava is very helpful for many eye disorders, for chronic ophthalmia used leaf juice with honey, dropped into the eyes. It is also used to treat cataract. The various parts of the herb such as leaves and roots can be effectively used to combat eye irritations and infections. This can be attributed to the potent anti-microbial activity of Punarnava powder. Root juice is put into eyes so to get relief from eye ailments such as conjunctivitis & night blindness.

Cataract: Grind the root of Punarnava with water. Make a paste of it and apply as the eyeliner. It cures cataract with the regular usage. Grind the hogweed root and mix with ghee. Use it as eyeliner. It treats eye flu. Crush the hogweed root and mix it with honey. Use this as eyeliner. It treats redness of the eye.

Nighttime blindness & Glaucoma: Take 1/2 tsp of Punarnava mixed in 1/2 tsp of Triphala Ghrita. Mix this in 1/2 cup of warm water until the ghee has melted completely. Take 2 or 3 times daily before meals, simultaneously make an eye wash using Punarnava tea (strain the herbs and cool) and flush the eye using an eye cup each morning and night.

Edema

Swelling occur due to excess of watery fluids in cell, tissue is known as edema.

Punarnava leaves are used to reduce edema. It can be occur if blood circulation is disturbed, body movements.

Punarnava has cooling & firming effect.

Punarnava powder is mixed in equal quantities of sandalwood powder, turmeric & water then applied on swelling area.

Edema & Water retention: Take 1/4 tsp each of Punarnava and Gokshura powder. Mix in half cup of plain ginger tea and take three times daily, before meals.

Retention of Fluid: take this mixture internally while applying a paste made out of equal portions of Punarnava and Ginger powder locally on the site of retention, leaving it on for 20 -30 minutes.



Fig.3. Feet edema

In case of feet edema it is beneficial to mix with water, baking powder & rice, because rice water improve the blood circulation & reduces the swelling.

Heart disease

Punarnava is beneficial because it has cardioprotective action. It protect the heart. It is helpful to prevent congestive heart failure but it is not powerful remedy, it is given as adjuvant for Terminalia Arjuna bark powder, Tapyadi Loha & other beneficial remedies used in congestive heart failure .The punarnava powder is beneficial for high blood pressure because it acts as a blood thinner for those with high blood pressure.

Cancer

Cancer occurs due to the abnormal division of cell in an organ & tissue in an uncontrollable manner. Punarnava contains an alkaloid i.e Punarnavine.

Punarnavine has strong anti-cancer properties. According to study punarnavine enhance the immune response & prevent the metastatic progression of B16F-10 melanoma cells in rat. The whole plant extract is very much beneficial for cancer cure.

It is also inhibit the spread of melanoma cells. The plant extract has hepatoprotective & antioxidant properties beneficial for preventing liver cancer.

Fatty liver disease

Fatty liver is also known as hepatic steatosis, it occur due to deposition of fat in the liver i.e excessive accumulation of fat in the hepatic cells.

Punarnava used for liver disease. It is help to prevent liver enlargement. It protect the liver cells against damage.

Obesity

Punarnava is effective in treating obesity. It stimulates the removal of excess fluids & waste products from the body through urine. It is helps in weight loss.

Diabetes

Punarnava control & stabilize blood glucose levels in the body. It is mainly used for urinary & kidney disorders. It helps to improve the functioning of kidney damaged by diabetes. It is also increase the plasma insulin levels that helps in managing diabetes well.

CONCLUSION

It is concluded that Punarnava is used for many diseases such as kidney disease, kidney stone, jaundice, inflammation, eye disease, edema, heart disease, cancer, fatty liver disease. Punarnava is mostly used in treatment of renal and urinary disorders. Punarnava has anti-inflammatory and diuretic. It is used such as a kidney tonic & heart tonic. It is found in the India mostly in rainy season. Punarnava help to treat inflammatory conditions for example gout, edema, arthritis. Punarnava is beneficial because it has cardioprotective action. It's help to prevent congestive heart failure. For chronic ophthalmia used leaf juice with honey, dropped into the eyes.

Punarnavine has strong anti-cancer properties. As per study punarnavine enhance the immune response & prevent the metastatic progression of B16F-10 melanoma cells in rat. The whole plant extract is very much beneficial for cancer cure.

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