

KRISHNA (PIPPALI) CHOORNA VATI IN TREATMENT OF VATAKAPHAJ GRIDHRASI VYADHI

Dr. Sonali S. Mahajan*

Asst. Professor Rognidan Dept. Gramin Ayurved College, Patur.

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*Corresponding Author

Dr. Sonali S. Mahajan

Asst. Professor Rognidan

Dept. Gramin Ayurved

College, Patur.

ABSTRACT

Gridhrasi (sciatica) is one among the *Vataja Nanatmaj Vyadhi* (disease) described in *Ayurveda*. It is a painful neuromuscular disorder, posing serious threat to the quality of life of most productive group of population in today's India. It indicates typical gait that resembles with a "Griddha". The cardinal signs and symptoms of *Gridhrasi* are *Ruka* (pain), *Toda* (pricking sensation), *Stambha* (stiffness) and *Muhurspandan* (tremors) in *Sphik* (sacral region), *Kati* (lumbar), *Uru* (thighs), *Janu* (knees), *Jangha* (calf region) and *Pada* (legs) in order and restricted lifting of the legs. In *Kaphanubandha* (association of

Kapha) *Tandra* (drowsiness) *Arochaka* (loss of interest), *Gaurav* (heaviness) are present. The signs and symptoms seen in *Gridhrasi* have resemblance with that of disorder *sciatica* in modern science. It is a very painful condition in which pain begins in lumbar region and radiates along the postero-lateral aspect of thigh and leg due to compression or irritation of *sciatica* nerve. Because *Gridhrasi* is a very painful and chronic condition it has to be managed by regular treatment. Though many theses have been worked out for the burning problem, still there is need of evaluation of certain clinical therapies on various scientific parameters which could be safe, effective and readily available, so this drug has been selected.

KEYWORDS: Sciatica, gait, tremors.

INTRODUCTION

Vata Vyadhi occurs due to Vata dosha dushti (vitiation) and Vriddhi (aggravated) causing symptoms like *Ruja* (pain), *Graha* (stiffness), etc.

Gridhrasi is one of the *Vatavyadhis* in which the pain starts from hip and gradually comes down to waist, back, thigh, knee and foot affecting these parts with stiffness, distress and

piercing pain.^[1] These symptoms are of Vata but when disordered is caused by Vata and Kapha causing drowsiness, heaviness and anorexia.^[1] The signs and symptoms of Gridhrasi resembles to that of Sciatica.

To maintain present existing life style, one has to become irregular and natural life cycle is disturbed. In present civilized area, the travelling is increasing day by day and due to uneven roads, obstacles cause injury to vertebral column. Malnutrition also supports by way of destructing the tissues that results into compression of sciatic nerve and also provokes Vatadosha. The disease prevails in about 30% of population.

Though there has been immense research for the cure of this disease in various systems of medicines, the disease still remains a challenge to the medical world. Modern medicines provide symptomatic relief and those treating root cause are costly and can cause side effects.

Ayurveda accepts this disease as Kricchhay Sadhya (very difficult to cure) but effectively checks the ongoing pathogenesis of the disease. There is a need of evaluation of certain ayurvedic clinical therapies on various scientific parameters which could be safe, effective and readily available. So this drug study had been selected.

गोमूत्र एरण्ड तैलाभ्याम कृष्णा पीता सूचूर्णिता !

दिर्घकालोत्थितां हन्ति ग्रिध्रसि कफवातजां !!

भै. र. २६ / ४० वातव्याधि चि.

Krishna choorna(powdered Piper longum) with its Ushna (hot), Tikshnaguna(penetrating) leads to Shoolanashan(pain relief) and Vyadhiprashaman(disease cure) in Gridhrasi vyadhi.^[4] Errand taila(oil of seeds of Ricinus Communis) is Madhur(sweet), Tikta(bitter) rasatmak(taste) with Madhur Vipak leading to vatakhaya(alleviation) property.^[4] Gomutra (cow's urine) is good digestive, laxative and neutralizing agent against toxin and Tridosha Dushti nashan and decreases Vata disorder.^[5]

Pharmacology of pippali

Pippali is antibacterial, anti-inflammatory, antimalarial, CNS stimulant, antitubercular, antihelminthic, hypoglycemic, antispasmodic, cough suppressor, anti- giardial, immunostimulatory, hepatoprotective, analeptic, antinarcotic, antiulcerogenic.

Chemical constituents of pippali

Two alkaloids piperlongumine and piperlonguminine characterized as N-(3,4,5 – trimethoxy cinnamoyl) Piperidine – 2- one and isobutylamide of piperic acid respectively.(stem and roots) ;n- hexadecane, n- heptadecane, n- octadecane, n- nonadecane,n- eocosane, n- heneicosane, alpha thujene, terpinolene, zingiberene, p- cymene, p- methoxy acetophenone, traces of dihydrocarveol, phenyletyl alcohol and two sesquiterpenes (essential from the dried fruit), piperine, pipartine, triacontane, dihydro-stigmasterol,an unidentified steroid, reducing sugars, glycosides aesamine and methyl 3,4,5- trimethoxycinnamate(roots); major alkaloid piperine and sesamin (stem and fruits); sesquiterpenehydrocarbon, caryophyllene, a sesquiterpene alcohol, carbonyl compound(essential oil);N- isobutyldeca- trans -2- trans-4- dienamide, piperine, pipartine and a lignan d- sesamin, two piperidine alkaloids- piperonaline and piperundecalidine(fruit), sylvatine, sesamine and diaeudesmin.

Preparation of Castor oil

Castor oil can be prepared with two different methods, the first belongs the crushing of whole or decorticated seeds in power driven hydraulic processes and the second one known as Ghani, which consists of manually operated, screw press driven by bullocks For commercial extraction, the first method is adopted. The oil produced is a non medicinal castor oil.

The seeds are graded and made free of impurities like metallic pieces of iron and sand. the seeds are decorticated and hells are removed. If the seeds are not decorticated, the manorial value of the cake increases. But for medicinal purposes, it is desired that the seeds should be decorticated, as it improves the color of the oil and also helps in controlling its acid value.

Decorticated seeds are pressed under hydraulic press with a pressure of 2 tones per square inch which helps in extracting out 30% of the oil present in the seeds at room temperature. The oil is known as cold drawn oil. Rest of the oil from the seeds is removed by further increasing the pressure and sometimes by hot pressing or even by solvent extraction process. The oil thus processed is not suitable for medicinal purpose. The cold drawn oil is then steamed at 80 degree celsius to destroy the enzyme lipase and ricin (toxic protein). it is then bleached and deacidified with sodium carbonate to remove the free fatty acid. It is necessary that oil is washed with hot water before steaming to remove the mucilaginous matter present in the oil. Finally it is treated with animal charcoal to remove the impurities by adsorption and filled into the containers.

Description

Color – Pale yellow or almost colorless liquid. Odor – Slight and characteristic

Taste – First it is bland but afterwards slightly acid and usually nauseating.

It is a viscous transparent liquid. It is soluble in alcohol (an exception to the category of fixed oils), miscible in chloroform, solvent ether, glacial acetic acid, and petroleum ether. It is insoluble in mineral oil.

Chemical Constituents

Castor oil chiefly contains triglycerides of ricinoleic acid (about 80%). Other glycerides are also present in the drug, where the fatty acids are represented by isoricinoleic, linoleic, stearic and isostearic acids. The viscosity of the castor oil is due to ricinoleic acid.

Uses

Castor oil is useful in cases of lumbago, Sciatica and fungal infections.

Castor oil often given (60 ml) orally alone or with quinine at term. The oil can be used as a vehicle for parenteral administration of steroidal hormones as a bland emollient. In the form of 5-10% ointment in seborrheic dermatitis and the cutaneous infections.

Medicines such as atropine, cocaine, etc. are often suspected in the oil for ophthalmic application. Sodium ricinoleate solutions are used as injection in sclerosing treatment of varicose veins. Sodium ricinoleate and sulpho ricinoleate have strong bacteriocidal action and are used in tooth formulations.

Chemical composition of Gomutra(cow urine)

- 1) Nitrogen, carbolic acid, lactose (when the cow is lactating)
- 2) Sulphur
- 3) Ammonia which is antiseptic and blood purifier
- 4) Copper
- 5) Potassium
- 6) Manganese
- 7) Urea
- 8) Salts
- 9) Acid, which is beneficial (Arogyakara)
- 10) Calcium

11) Water

Bio – chemical constituents of Gomutra

- 1) Protein - 0.1037 gm/lit
- 2) Uric acid - 135.028 mg/lit
- 3) Urea - 5.5418 milli mole/lit
- 4) Creatinine - 0.9970 gm/lit
- 5) Lactate - 3.7830 milli mole/lit
- 6) Phenol - 4.7580 mg/100ml

Free volatile phenol - 0.7130 mg/100ml Mixed volatile phenol - 1.3420 mg/100ml Aromatic hydroxyl acid - 2.7030 mg/100ml

7) Vitamin

Vit C - 2.16 mg /lit

Vit B1 -444.125 micro gram /lit Vit B2 - 0.6339 mg/lit

8) Enzymes

Lactate dehydrogenase 21.780 unit/lit

Alkaline phosphatase 110.11 k.a. unit Acid phosphatase 456.620 k.a. unit

Amylase 90.236 unit

9) Minerals

Calcium 5.735 milli mole/lit

Phosphorous 0.4805 milli mole/lit



Dry Pippali



Pippali Choorna

Erand tel



Gomutra



Bhavana Of Gomutra to Krishna Choorna



Krishna choorna vati

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