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Therapeutic Indication of Suranjan Shirin (*Colchicum luteum*)

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ABSTRACT

The Colchicum luteum is known by the name of colchicum in English, *Suranjan* in Sanskrit and *Hirantutiya* in Hindi. It belongs to the family of Liliaceae. The common names of the plant are autumn crocus and meadow saffron. The corms of the plant are usually used to make natural medicines. It is known to be Phlegm and bile suppressant. These are the principle stabilizing energies that govern the body as well as the mind. It is connected with the structure, lubrication, fluid balance and stability of the entire human body. Test drug *Surinjan Shirin* is classical and famous Unani drug being used extensively for gouty arthritis in almost every Unani set up. Their said actions are mentioned in various ancient Unani text and some scientific literatures also claim that it has *Mulattif* (demulcent), *Muhallil* (Anti-inflammatory) *Muarriq* (diaphoretic), *Muharik* (stimulant) etc. activity, and reduces the viscosity of all humours. Hippocrates has described that it maintains the viscosity of all humors. Several studies have been carried out for the therapeutic evaluation of its efficacy and safety. So, I want to compile and summarized all the literature at one space.

Keywords: Colchicum; *Chobchini; Mulatif; Muhalli-e-waram; Muarriq; Muharik.*

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INTRODUCTION

Colchicum Luteum is known for its pain-relieving properties that also help in relieving wounds. Colchicum helps in preventing indigestion and work as a laxative that relieves constipation. This medicinal herb is helpful for all kinds of liver and spleen related problems. It purifies the blood and acts as diuretic. This plant is also advised by naturalists for patients who suffer from any condition related to the urination.[1,2]

The drug Colchicum laetum is a species of Colchicum found in south east Russia through to the Caucasus. A plant known in cultivation as C. laetum 'Pink Star' is thought to be a selection of Colchicum byzantinum. It has flowers which are pale purple-pink with rounded ends; the petals of each bloom are often held parallel to the soil surface. Colchicum luteum is used as a carminative, laxative, and an aphrodisiac. Colchicines are effective in the treatment of gout, rheumatism, and diseases of liver and spleen. Externally, the corms are applied as paste to lessen inflammation and pain.[3,4,5,6]

MATERIALS AND METHOD

Review material collected from the different ancient Unani books, PG Dissertation, online authentic research Journals & different websites and summarized with the help of computer.

Description of Plant In Unani Literature

Habitat:

Distributed in the western temperature Himalaya extending from murree-hill to Kashmir and chamba (India). Upto 700 to 3000 meter it is also found in Afghanistan and Turkey. Annual leaves few lorate linear-oblong or oblanceceolate, obtuse, appearing with flowers, short at flowering time, at fruiting 15-3-cm. Tip rounded, flower1-2 (inspiring), 2.5-3.8 cm in diameter when expanded, perianth golden yellow, tube 7.5-10cm. Segments oblong or oblanceolate, obtuse, many nerved; stamen shorter than the perianth; filaments very much shorter than the yellow anthers; style filiform, much longer than the perianth; capsule 2.5-3.8 cm; valves with long recurved beaks, the drug (corm) suranjan yellow or black in colour. The corms are somewhat conical, ovoid or elongated; they are a translucent or opaque. The flat surface has longitudinal groove. The surface is marked by indefinite and irregular longitudinal striations. Fresh corms measure 15-20mm in diameter. These are odourless and have a bitter and acrid taste.[5,6]

Procedure and time of collection:

The corms are dug out and separated from shrivelled remains of the flower stalk and the adhering soil. Tied in pieces of cloth and dipped for a short while in boiling water and dried. A better way sometimes adopted is expose the corms for a short time to steam before drying. This prevents the

loss of colchicine during boiling. The corms are collected from June to July after the leaves have died down.[6]

Parts used : Dried forms.[6,7]

Family : *Liliaceae* (Colchicum family)

Synonyms[7,8,9,10]

Unani Name : *Suranjan talkh, Allahah Qalb-al-arz*.

Botanical Name : *Colchicum luteum*

Urdu Name : Suranjan shirin

Hindi Name : Hirantutiya

Botanical Description

Macroscopic:

The drug available in is the market in the form of pale yellow to deep brown horny corms 2.5-5 cm long. 1.5-2.5cm broad. Gibbously avoid with tapering apex and prominent groove on one side. On careful examination at the base of this groove, a bed can be seen in good specimens. On the opposite convex site, a little below the apex, is present a small groove with an accessory bud. The apex of corn is marked by a dark depression representing the position of flooring shoot. At the bottom of the convex side is a prominent scar marking. The point of attachment with the parent corn and numerous small root corms processing numerous longitudinal and transverse fissure which make their appearance on a drying after treatment in boiling water. The drug is odour less and is bitter in taste. The fracture is horny.[7]

Microscopic:

The drug is transverse suction appears lentiform being depressed in region of groove. The epidermis consists of rectangular cells some of which contain a few starch grains. At certain interval this layer found to be ruptured due to storage. Below the epidermis layer is a thin wall hypoderm composed of similar cells but devoid of contents. The ground tissue is composed of thin

wall parenchyma densely loaded with starch. Some of the cell near periphery on the groove side are more or less crashed laterally forming 2-4 fine streaks. There are numerous scattered vascular bundles mostly located in the centre region of corm near the barrel bud. The bundle near the periphery is poorly developed and more scattered. The vascular bundle is collateral with occasional bilateral bundles. The xylem consists of annual or spiral elements. The starch groove is the parenchymatous ground tissue, simple ovoid, spherical, polyhedral. They are varying in size from 2-21 micron and possess 2-6 angled stellate hilum. Loosely jointed compound starch grain 2-3 compound is not uncommon.

Study of Powder drug:

The powder is creamy white to light yellow coloured with yellow to brown steaks. When mounted in a solution of charcoal hydrate and glycerin and observes under microscopic reveals the presence of the cells of epidermis, cell of ground tissue, numerous starch grain spiral and annular elements of vascular bundle.[7]

Chemical constituents:

Organic: alkaloids, glycosides, protein (amino acid), Carbohydrates, resin, steroids, tritrepens.

Inorganic: Sodium, potassium, calcium, Iron, sulphate, phosphate, Identity, Purity, Strength assay

Foreign organic matter	:	Nil
Purity	:	100%

Physiochemical constant (%):

Total ash	:	2.75
Acid insoluble as	:	18.20
Water soluble ash	:	43.60
Loss of weight on drying at 110˚c	:	1.02
Taste	:	Bitter [7,11,12]
Temperament[7,11]	:	Hot 3˚, Dry 3˚
Method of processing	:	Nil

Action:

Muhalli-e-waram (anti-inflammatory), *Mullayyin* (Laxative), *Mudirr-e-boul* (diuretic), Liver and spleen related problems, Dysurea, Sciatica and Blood infection.[7,8,9,10,13]

Therapeutic Use

Alterative:

The Colchicum Luteum causes a gradual change in the body which is usually because of improved nutritive absorption as well as the elimination of toxins from the body.

Aphrodisiac:

The herb works as an aphrodisiac that increases the sexual desires in a person.

Carminative:

The Colchicum Luteum plant reduces flatulence and helps in expelling excessive gas from the intestines.

Laxative:

The herb is known to stimulate the bowel movement in the body naturally and solve the problem of constipation.

Anodyne:

Colchicum Luteum is known for its pain-relieving properties. It is also a very beneficial pain-relieving agent.

The Colchicum Luteum Plant Is an Excellent Relieve for the Following Ailments

Joint pains:

This plant has been used for relieving the problem of joint pain for centuries.

Skin related problems:

Application of Colchicum Luteum on the skin can relieve ailments of the skin.

Rheumatoid arthritis:

This plant is beneficial for people suffering from swelling due to rheumatism. It is advised to use a paste of this herb with saffron and egg for relieving rheumatic pain.

Gouty arthritis:

The presence of colchicine in the corms is very beneficial for relieving pain and for inflammation caused due to gout.

Wounds: The dried root of the plant is beneficial for relieving injuries.

Osteoarthritis

Substitute: *Turbud, Aftimum*

Important formulation: *Raughan-e-suranjan, Majoon-e-suranjan, Habb-e-suranjan.*[7,8]

Doses: 250 to 500mg

Side Effects:

The excessive intake of Colchicum Luteum may prove to be harmful. It has been known to cause narcotic action as well as a suppressant for brain activities. It can also cause intestinal pain, diarrhoea and vomiting. The leaves, corm and seeds can be poisonous if taken without consultation. The herb is very bitter to taste and can darken on exposure to light. The corm of the

Colchicum Luteum needs careful handling. It is poisonous can cause serious inflammation in the stomach.

Corrective: *Samagh-e-arabi* (*Acacia arabica* Mill)

SCIENTIFIC REPORT

- The methanol extract of the corms of the Colchicum luteum Baker (Liliaceae) and its subsequent solvent fractions were screened for brine shrimp cytotoxic, phytotoxic, insecticidal activities and phytochemical studies. Results revealed significant cytotoxicity of the extracts and therefore, can be a potential new natural source for the treatment of different types of cancers. Phytochemical studies showed the presence of various pharmacological groups especially alkaloids, phenols, flavonoids and saponins.[14]
- Colchicine is a secondary metabolite, originally extracted from plants of the genius colchicum it consists of the dried ripe seeds of *Colchicum autumnale* Linn., colchicine effectively functions as a mitotic poison or spindle inhibitor but the major disadvantage of the colchicine is toxicity and non-target cell (normal cell) effect.[15]

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REFERENCES

1. Wortmann RL. Gout and hyperuricemia. In Firesteein G Kelley's Textbook of Rheumatology. Philadelphia: Saunders Elsevier, 2008:148-524.
2. Benedek TG, Rondnan GP. A brief history of the rheumatic disease. Bull Rheum Dis. 1982; 32:59-68
3. Nuki G, Simkin PA. A concise history of gout and hyperuricemia and their treatment. Arthritis Res Ther. 2006; 8(suppl 1): S1
4. Unwood C.E. General and Systematic Pathology. 3rd edi. Churchill Livingstone; 2000: 726-27, 131-32, 577.
5. Nafis B. Kulliyat Nafisi. Daftarul masihi, Delhi. 1935:132-33.
6. Ahmed SI. Al Umur al Tabiyah (Principles of human physiology in Tibb). CCRUM Publication, 1st edi. 1980, reprint 2009:105-10.
7. Ibn Rushd. Kitabul kulliyat. 1st edi. CCRUM Publication, New Delhi. 1980; (1): 105-10.
8. Kabeeruddin M. Tarjma wa sharha kulliyate qanoon. 1st edi. Maktaba Mahboobul matabe, Buraqui press, Delhi 1930; (1):128-29.

9. Jafri SAH, Siddiqui MMH. Tarjama daqaiqul ilja (Urdu). Makhtar Printing workers, Deoband. 1990; (1) :471-73.
10. Hussain SG. Tarjama Qanoon. Munshi Nawal Kishor, Lucknow. 1303H; Vol.1 &3: 59,88,163,247 & 376.
11. Tarique HNA. Khawas ul Advia. YNM: 105-06 & 460-61.
12. Ali HSS. Unani advia mufradat. 1st edi. 1979: 58,191-92.
13. Kirmani N. Maulijate nafeesi. Maktaba Nawal Kishore, Lucknow. 1904: 424-25.
14. Saag KG & Choi H. Epidemiology, risk factors and lifestyle modifications for gout. Arthritis Res Ther. 2006; 8 (Suppl 1): S2.
15. Zillur Rahman HS. Translation of Risala Fi Auja Al-Niqris. Ibn Sina Academy, Aligarh. 2007: 106,119-20.