

Available online on 15.06.2020 at <http://jddtonline.info>

Journal of Drug Delivery and Therapeutics

Open Access to Pharmaceutical and Medical Research

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Review Article

Majoon-E-Piyaz: A Potent Unani Formulation for Premature Ejaculation

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ABSTRACT

Sur'at-e-Inzāl (Premature Ejaculation) is the most prevalent male sexual dysfunction affecting 25 - 40% global population of men. It is a universal disorder and is independent of age, social or marital status. It has a significant impact on both- patients and their partners, causing distress, anxiety and relationship difficulties affecting the quality of life. Several aetiologies have been proposed by various researchers which are not evidence-based but speculative. Accordingly the International Society for Sexual Medicine (ISSM) issued treatment guidelines for Premature Ejaculation (PE) recommending Serotonergic Antidepressants (SSRIs) and Local Anaesthetics (LA) for its management in modern medicine. However, these treatments were not actually developed for PE, and have limitations associated with their off-label use. Furthermore, nearly all the recommended drugs have a wider spectrum of adverse effects and serious drug interactions which sometimes could be fatal. On the other hand, centuries old Unani medicine offers a complete line of treatment for *Sur'at-e-Inzāl* based on traditional knowledge and experience. Unani physicians devised a large number of poly-herbal recipes which are still in vogue. *Majoon-e-Piyaz* (MP) is one of the compound Unani formulations which are in use for the treatment of premature ejaculation since centuries. This article is an attempt to summarize scientific investigations in support of the claim made by Unani physicians regarding *Majoon-e-Piyaz* (MP).

Keywords: Sur'at-e-Inzāl, Premature Ejaculation, Majoon-e-Piyaz, Unani Medicine

Article Info: Received 22 March 2020; Review Completed 14 May 2020; Accepted 20 May 2020; Available online 15 June 2020



Cite this article as:

Alam S, Anjum N, Akhtar J, Bashir F, Khan AA, Majoon-E-Piyaz: A Potent Unani Formulation for Premature Ejaculation, Journal of Drug Delivery and Therapeutics. 2020; 10(3-s):330-334 <http://dx.doi.org/10.22270/jddt.v10i3-s.4123>

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Introduction

Unani System of Medicine is an ancient system dates back to the times of its origin when Greek physician Hippocrates (370-460 BC) freed Medicine from magic and superstitions and gave it the status of science. In Unani medicine, four types of treatment are employed which include Regimenal therapy (Ilaj Bil Tadbir), Dietotherapy (Ilaj Bil Ghiza), Pharmacotherapy (Ilaj Bil Dawa) and Surgery (Ilaj-Bil Yad). Pharmacotherapy deals with the use of naturally occurring drugs, mostly herbal, though drugs of animal and mineral origin are also used. Since in this system stress is laid on the particular temperament of the individual, the drugs are prescribed according to the temperament of the patient, thus accelerating the process of recovery and also eliminating the risk of drug reaction. Unani physicians encouraged poly-pharmacy and devised a large number of poly-pharmaceutical recipes which are still in vogue. In Unani medicine, although general preference is for single drugs, compound formulations are also employed in the

treatment of various diseases. *Majoon-e-Piyaz* (MP) is one of the compound Unani formulations which are in use for the treatment of premature ejaculation since centuries. Although Unani medicine describes holistic approach for the treatment of numerous disease and disorders related to every bodily system but its role in dealing with male sexual disorders is invincible establishing Unani physicians' reputation in the field.

Description

Majoon-e-Piyaz is a dark brown semi solid preparation with characteristic odour and sweet taste which is being prescribed with great reputation from centuries for the treatment of *Sur'at-e-Inzāl* i.e. Premature Ejaculation. According to different Unani Pharmacopoeias this compound formulation is exclusively used as *Muqawwi-e-Bah* (aphrodisiac) and *Mumsik* (semen retentive) for the treatment of male sexual disorders - *Sur'at-e-Inzāl* (premature ejaculation), *Zof-e-Bah* (sexual debility) and *Jiryān* (spermatorrhoea) [1,2].

Table 1: Composition of *Majoon-e-Piyaz* [1,2]

| S.N. | Ingredients | Botanical names | Part used | Quantity |
|------|--------------------|---|---------------|----------|
| 1. | Tudri surkh | <i>Cheiranthus cheiri</i> L. | Seed | 35 g |
| 2. | Tudri safaid | <i>Matthiola incana</i> R.Br. | Seed | 35 g |
| 3. | Salab Misri | <i>Orchis latifolia</i> L. | Tuber | 35 g |
| 4. | Behman Surkh | <i>Salvia haematodes</i> L. | Root | 35 g |
| 5. | Behman Safaid | <i>Centaurea behen</i> L. | Root | 35 g |
| 6. | Zanjabeel | <i>Zingiber officinale</i> Rosc. | Rhizome | 35 g |
| 7. | Tukhm-e-Piyaz | <i>Allium cepa</i> L. | Seed | 35 g |
| 8. | Tukhm-e-Turb | <i>Raphanus sativus</i> L. | Seed | 35 g |
| 9. | Tukhm-e-Gandana | <i>Allium ascalonicum</i> L. | Seed | 35 g |
| 10. | Tukhm-e-Shalgam | <i>Brassica rapa</i> L. | Seed | 35 g |
| 11. | Talmakhana | <i>Hygrophila auriculata</i> (Schum.)Heine. | Seed | 35 g |
| 12. | Musli safaid | <i>Chlorophytum arundinaceum</i> Baker. | Root | 35 g |
| 13. | Musli siyah | <i>Curculigo orchioides</i> Gaertn. | Root | 35 g |
| 14. | Aab-e-Piyaz Safaid | <i>Allium cepa</i> L. | Onion extract | 1.5 lit |
| 15. | Qand Safaid | Sugar | Crystals | 1.5 kg |

Method of preparation [2]

- Take all ingredients of Pharmacopoeial quality.
- Clean, wash, dry and powder ingredients no. 1 to 13 separately.
- Peel the ingredient no. 14, cut into small pieces and make paste. Squeeze the paste carefully in a muslin cloth to obtain the juice (*Aab*).
- Weigh each ingredient and mix together and keep separately.
- Dissolve ingredient no. 15 with ingredient no. 14 on low heat and boil the content.
- At the boiling stage add the 0.1% citric acid, mix thoroughly and heat the content till *Qiwam* of 75 Brix is obtained.
- Remove vessel from flame, in hot condition add the mixed powder of the ingredient no. 1 to 13 followed by 0.1% of *sodium benzoate* and mix thoroughly to prepare the homogenous blend.
- Allow it to cool at room temperature.
- Store in containers and make them air tight to protect from light and moisture.

| Successive extractives | |
|------------------------|------------|
| <i>Pet. ether</i> | 2.33-2.62% |
| <i>Chloroform</i> | 0.49-0.50% |
| <i>Ethyl alcohol</i> | 5.22-6.08% |

| pH value | |
|--------------------|------|
| pH of 1% solution | 4.90 |
| pH of 10% solution | 4.60 |

| | |
|----------------------|--------------|
| Bulk density | 1.34-1.35 |
| Total ash | 1.17-1.32% |
| Water soluble ash | 0.36-0.41% |
| Acid insoluble ash | 0.25% |
| Volatile oil | Traces |
| Saponification value | 152.79 |
| Iodine value | 77.98-80.92 |
| Acid value | 27.14-30.28 |
| Alkaloids | 0.02% |
| Total Phenolics | 0.24-0.52% |
| Resin | 0.90-1.45% |
| Reducing sugar | 13.24-13.31% |
| Non-reducing sugar | 45.22-45.28% |
| Crude fibre | 1.09-1.38% |

Physicochemical Data of *Majoon-e-Piyaz* [3]

| Appearance | Semi solid |
|------------------------|----------------------|
| Colour | Dark brown |
| Smell | Onion like |
| Taste | Sweet tending bitter |
| Alcohol soluble matter | 19.53-21.35% |
| Water soluble matter | 32.40% |

Thin Layer Chromatography [3]

| Extract | Solvent system | Spray/Treatment | No. of spots | Rf. values |
|------------|--|--|--------------|--|
| Pet. ether | Benzene, Ethyl acetate (2:1) | 5% H ₂ SO ₄ in ethanol | 7 | 0.86 0.85 0.76 0.44 0.41 0.26 0.17 |
| -do- | Cyclohexane, Ethyl acetate (4:1) | Iodine vapour | 3 | 0.88 0.39 0.31 |
| Chloroform | Ethanol, Chloroform, Butanol, Ammonia Solution (3:3:4:1) | Dragendroff's reagent | 4 | 0.90 0.68 0.36 0.11 |
| Chloroform | Cyclohexane, Ethyl acetate (4:1) | Iodine vapour | 2 | 0.82 0.70 |
| Ethanol | -do- | -do- | 3 | 0.78 0.33 0.27 |

Dose & administration [3]

5-10g Oral twice a day along with milk or water

Actions [3]

Muqawwi-e-Bah (Aphrodisiac), *Mumsik* (Semen Retentive)

Therapeutic uses [3]

Surat-e-Inzal (Premature ejaculation), *Zof-e-Bah* (Sexual debility) and *Jiryana* (Spermatorrhoea)

Table 3: Brief account of Ingredients of Majoon-e-Piyaz

| Ingredient | Part used | Botanical Name | Traditional use | Research Studies |
|----------------------------|-----------|--|---|--|
| Tudri surkh & Tudri safaid | Seed | <i>Cheiranthus cheiri</i> L. & <i>Matthiola incana</i> R.Br. | Premature ejaculation, Spermatorrhoea & Nocturnal emission, Sexual debility, Erectile dysfunction, Lactation insufficiency [4,5] | Seeds are aphrodisiac, stomachic and tonic. In small doses it is a Cardiotonic but in more than small doses it is toxic [6,7]. Zakai et al reported the fertility potential of herbal formulation containing seeds of <i>C. cheiri</i> . Test drug formulation caused a significant improvement in total sperm count and found effective in the treatment of idiopathic oligospermia [8]. |
| Salab Misri | Tuber | <i>Orchis latifolia</i> L. | Oligospermia, Erectile dysfunction, Sexual debility, Premature ejaculation, Spermatorrhoea, Nocturnal emission, Muscular weakness [4,5] | Jagdale et al reported a significant increase in (a) mounting behaviour, (b) reproductive organ weights (c) sperm counts, (d) protein, (e) haemoglobin and (f) testosterone content as compared to control group in Swiss albino rats. This proves the aphrodisiac potential of <i>Orchis latifolia</i> . [9] |
| Behman Surkh | Root | <i>Salvia haematodes</i> L. | Sexual debility, Oligospermia, Spermatorrhoea, Nocturnal emission, Premature ejaculation, Palpitation, Heart disease General debility, depressed mood [4,5] | Islam et al demonstrated the effect of ethanolic extract (500 mg/kg bw), of <i>S. haematodes</i> roots on sexual & copulatory behaviour of male rats thereby showing a significant increase in episodes of penile erection and ejaculation latency, and enhanced orientation of males rats towards the female. [10] Another study reported enhanced anabolic activity, testicular function and sexual behavioural performance in a dose-dependant manner in male rats when treated with <i>Salvia haematodes</i> roots extract. [11] |
| Behman Safaid | Root | <i>Centaurea behen</i> L. | Sexual debility, Oligospermia, Spermatorrhoea, General debility [4,5] | Ethanol extractive of <i>C. behen</i> showed significant anxiolytic activity at a dose of 200 mg/kg which was statistically significant to standard drug diazepam [12] |

| | | | | |
|------------------------------------|--------------------------|--|---|---|
| Zanjabeel | Rhizome | <i>Zingiber officinale</i> Rosc. | Sexual debility & Impotency; Nervine disorders [4,5] | It was demonstrated that extract of <i>Zingiber officinale</i> possesses pro-fertility properties in male broiler which might be a product of both its potent antioxidant properties and androgenic activities. [13]. Another study revealed a significant androgenic activity of Ginger on testicular histology of adult Sparague Dawley rats [14]. Study showed the protective effects of the ginger extract by increasing antioxidant defence and suppression free radicals production in the serum of male rats. [15] One more study reported significant antidepressant activity of <i>Ginger</i> extract comparable to the standard drug seems to be mainly associated with the activation of dopaminergic system. [16] |
| Tukhm-e-Piyaz & Aab-e-Piyaz Safaid | Seeds & Extract of Onion | <i>Allium cepa</i> L. | Sexual & Nervine debility, Oligospermia Erectile dysfunction, decreased libido[4,5] | Banihani reported that onion or its extracts (e.g., aqueous extract ~30 mg day ⁻¹) enhances testosterone production in males. The mechanisms by which onion enhances testosterone production in males is mainly by enhancing the production of luteinizing hormone, neutralizing the damaging effects of the formed free radicals, mainly in the testes, enhancing the antioxidant defense mechanism in the testis, ameliorating insulin resistance, promoting nitric oxide production in Leydig cells, and altering the activity of 5' AMP-activated protein kinase [17]. |
| Tukhm-e-Turb | Seed | <i>Raphanus sativus</i> L. | Sexual debility [4] | Manhal et al revealed that extract of <i>R. sativus</i> causes improvement in the reproductive performance of male wistar rats. Body weights were significantly decreased, while testicular weight increased in a dose dependant manner following administration of extract. It also improved the semen characteristics and significantly elevated the level of fertility hormones i.e. testosterone, Follicle-stimulating hormone (FSH), and Luteinizing hormone (LH) [18] |
| Talmakhana | Seed | <i>Hygrophila auriculata</i> (Schum.) Heine. / <i>Asteracantha longifolia</i> (L.) Nees | Spermatorrhoea, Nocturnal emission, Watery semen, Premature ejaculation Sexual debility, Oligospermia, Gonorrhoea and urethral dialation, Depressive mood [4] | Chauhan et al reported that ethanolic extract of seeds of <i>A. longifolia</i> were administered to groups of rats in 100, 150 and 200 mg kg ⁻¹ doses which exhibited pronounced anabolic effects in treated animals, as evidenced by gains in the body and reproductive organ weights. Increased spermatogenesis was also witnessed in transverse section. The treatment further markedly affected sexual behaviour of the animals, as reflected by the reduction of ML, increase in MF and enhanced attractability towards females. A significant increase in the sperm count as well as fructose levels of seminal vesicles was noted [19] |
| Musli safaid | Root | <i>Chlorophytum arundinaceum</i> Baker. | Sexual debility, Oligospermia, Spermetorrhoea, Impotency, General debility [4,5] | As demonstrated by Kenjale <i>et al.</i> rats were orally treated with dried roots powder of <i>C. borivilianum</i> 125 mg/kg/day and 250 mg/kg/day and their sexual behavior was monitored 3 hour later using a receptive female. Their sexual behavior was evaluated on days 1, 7, 14, 21 and 28 of treatment by pairing with a pro-oestrous female rat. For sperm count the treatment was continued further for 60 days. At 125 mg/kg, CB had a marked aphrodisiac action, increased libido, sexual vigor and sexual arousal. Similarly, at the higher dose (250 mg/kg) all the parameters of sexual behaviour were enhanced, but showed a |

| | | | | |
|-------------|------|-------------------------------------|---|--|
| | | | | saturation effect after day 14. On day 60 the sperm count increased significantly in both 125 mg/kg and 250 mg/kg groups in a dose dependent manner. Thus, it is evident that roots of <i>C. borivilianum</i> can be useful in the treatment of certain forms of sexual inadequacies, such as premature ejaculation and oligospermia [20] |
| Musli siyah | Root | <i>Curculigo orchioides</i> Gaertn. | Oligospermia, Spermetorrhoea, Impotency, General debility [4,5] | Studies revealed that ethanolic extract of <i>C. orchioides</i> rhizome significantly changed the sexual performance as assessed by determining parameters such as penile erection, mating performance, mount frequency and mount latency [21]. It is also demonstrated that <i>C. orchioides</i> had pronounced effect on orientation of male towards the female rats. Further, increased spermatogenesis in treated group was confirmed by change in histoarchitecture as evidenced by increase in number of spermatocyte and spermatids [22]. |

Conclusion

Majoon-e-Piyaz is a Unani pharmacopoeial formulation indicated in the treatment of Premature Ejaculation and in use since centuries. As evidenced by various research studies the polyherbal formulation is found in accordance with the claims made by Unani physicians. Hence, *Majoon-e-Piyaz* should be considered as first line of drug in the management of Premature Ejaculation.

Conflicts of interest

The authors declare no conflict of interest.

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