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Treatment of opium addiction in persian medicine: A review study

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Abstract:

Drug abuse is one of the most important threats to human beings today, leading to disability and even early death. In the past, opium had only therapeutic uses, but now, drug addiction is one of the major public health problems in Iran. Opium and its derivatives are the most commonly used illicit drugs in this country. Therefore, this study was conducted to evaluate the treatment strategies of opium addiction from the perspective of Persian medicine. In this narrative review, the search was conducted using appropriate keywords in the authoritative books of Persian medicine documentations of databases of PubMed, Google Scholar, PsycINFO, American Academy of Medical Sciences, United Nations Office on Drugs and Crimes with keywords of opioid and opium since 2000 AD. In Persian medicine books, "Afioon" means poppy plant (*Papaver somniferum*), which is called opium in English and "Theriac" in Persian. To quit, they should be gradually reduced and replaced with appropriate spices such as henbane (*Hyoscyamus niger*) seeds or mandrake (*Mandragora officinarum*) fruit or root or poppy (*P. somniferum*) seeds or poppy shell or Lettuce (*Lactuca sativa*) seeds, or castor testis or nutmeg (*Myristans fragrans*) fruit or ajwain (*Trachyspermum copticum*) seeds or baked bread. Opioid quit should be gradual and delayed in time of consumption and gradual reduction of opium levels, and bodies that have become lean for a long time will gradually recover with adequate nutrition over time.

Keywords:

Addiction, Iranian, opium, traditional medicine, withdrawal

Introduction

Drug abuse is one of the most common threats to human beings today,^[1] which can result in disability and even early death,^[2,3] and the economic and social burden of health care and rehabilitation and injury. Furthermore, other direct and indirect costs of addiction are undeniable.^[4] The pattern of drug abuse varies from country to country.^[5] The largest opium producer and exporter to Europe is Afghanistan. But in the world, the largest amount of opium in Iran has been seized.^[6] Therefore, drug abuse is one of the major public health problems in Iran, and opium and its derivatives are the most commonly used illicit drugs in this country.^[7-11] Traditionally in Iran, elderly

people use opium to relieve pain.^[12] In Afghanistan, carpet weaver women also use opium to relieve their pains and calm their children. Moroccan people use it to treat their cough and diarrhea and physical pain.^[13] Even in some parts of the United Kingdom and the United States, local use of opium for pediatric diseases has been reported,^[14] and there are reports of opium use in Turkey.^[15] According to a study in year 2017, reported that prevalence of opiate abuse is about 3% in Iranian adults.^[16] In the US, drug use for nonmedical use ranged from 0.2% to 0.4% per year, with women and age groups ranging from 26 to 34 years.^[17] In Europe, about 0.7% of people between the ages of 15 and 64 years had drug abuse a year.^[18] Drug abuse is more prevalent in men than in women, but medical, social, and economic damages are more significant in

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women. However, today the abuse of these substances has increased among women.^[13] Adverse effects of opioid abuse are also significant, including imbalances in thyroid and sex hormones,^[19] the risk of preterm birth,^[17] increased risk of stroke,^[20] impaired social and family relationships and divorce,^[21,22] and psychological and behavioral problems in children with addicted parents.^[23,24] On the other hand, unintentional use of these substances by children and causing poisoning in them is also problematic.^[25] Adverse effects of opium abuse clearly cause physical and mental disorders.^[26] Among several health problems associated with opioid dependence, some reports have found unusual pathological problems such as abdominal pain, anemia and kidney failure,^[27-30] and severe constipation that require medical intervention.^[25] Historical evidence suggests that, since the 16th century (AD), opium abuse has spread worldwide, especially in the eastern countries^[31] and until then, opium had only been in medical use for 3500 years,^[32] and used solely as a drug.^[33] It has also been used in some herbal remedies in Persian medicine.^[34] But from the fifth decade of the 10th century (AH (onward, its nonmedical uses expanded in Iran. Opiate is a narcotic substance and it is inevitable for humanity if it is to continue to be used.^[33] Therefore, with the spread of opium abuse in Iran, Persian doctors have mentioned in their textbooks the consequences of opium abuse and its treatment and abandonment.^[35] Persian medicine has a long history of preventing, diagnosing, and treating many diseases, and even up to 300 years ago the famous book of Ibn-E-Sina's Qanoon was taught in European countries. Although during the ups and downs of Iranian history, during wars and famines, many written sources of Persian medicine were lost or expelled, today, there are over 10,000 volumes of authentic books in Iranian libraries, which has made it, one of the richest medical sciences in the world.^[36] The World Health Organization (WHO) view of complementary and traditional medicines is also positive.^[37-42] Due to the many complications and economic and social burdens and disabilities that lead to drug use, it is necessary to pay attention to it. Furthermore, considering the special view of Persian medicine on opium abuse and the instructions it offers to quit, it is more important to pay attention to the several hundred years of experience in the authentic books of Persian medicine in this field. Therefore, we decided to conduct this review study to examine the view of Persian medicine on the methods of quitting opium addiction so that we can take a small step toward improving the health of our people on an individual and social level.

Materials and Methods

This content analysis study is a review of methods of quitting opium addiction from the perspective of Persian

medicine since the 10th Century AD. We searched the issues by studying the printed version of the books and using the specialized Noor software of Persian medicine. The books that were examined included Abniye An Haghayegh-al-Adviye (Abu Mansour Movafagh Ibn-e Heravi-10th Century AD), Al-Qanun Fi Al-Tibb or Canon of Medicine (Avicenna-10th and 11th centuries AD), Mofarrah-al-Gholoob (Mohammad Akbar Arzani-11th and 12th centuries AD), Zakhire Kharazmshahi (Seyyed Ismail Jorjani-11th and 12th centuries AD), Qanunche Fi Tibb (Mohammad Ibn-e Mahmoud Chaghmini Kharazmi-14th Century AD), Resal-e-Afyooniye (Emadeddin Mahmoud Ibn-e Massoud Shirazi-16th Century AD), Resal-e-Chinese woodcut (Emadeddin Mahmoud Ibn-e Massoud Shirazi-16th Century AD), Tohfe-al-Momenin (Mohammad Momen Tonkaboni-17th century AD), Exir-e-Azam (Mohammad Azam Khan-e Chashti-18th and 19th centuries AD), Qarabadin-e-Azam va Akmal (Mohammad Azam Khan-e Chashti-18th and 19th centuries AD), Makhzan al-Adviyeh (Mohammad Hossein Aghili Khorasani-18th and 19th centuries AD), Kholase-al-Hekma (Mohammad Hossein Aghili Khorasani-18th and 19th centuries AD), Qarabadin-e-Kabir (Mohammad Hossein Aghili Khorasani-18th and 19th centuries AD). The materials extracted from these books were each recorded as separate files (computer files). Then, these files were analyzed the content and their commonalities and differences were examined, and finally, the results were classified and presented. Databases such as PubMed, Google Scholar, PsycINFO, Scopus, and the American Academy of Medical Sciences, and the United Nations Office on Drugs and Crime were searched since 2000 AD and using the opioid and opium keyword to find new medical records. In our search, we found 139,000 articles, of which 42 articles related to our study were selected for the introduction and discussion of the article.

Results

In the written sources of Persian medicine, the word "Afioon" refers to "Poppy leachate" or "Khashkhash leachate" (*Papaver somniferum*),^[43] which is now called "Theriac."^[34,44-46] In Arabic it is called "Theriagh,"^[34,44] meaning inducer to deep sleep,^[34] and in English means "Opium."^[43] This leachate is obtained by rubbing Poppy plant capsules, which have an unpleasant odor and a bitter taste.^[47] Its nature is cold in degree 4 and dry in degree 3.^[34,43,44,48,49] Nature means temperament and in the word means intermingling and in Persian medicine means a new quality as a result of the intermingling of the four elements (water, fire, air, and soil) and the interplay between them in a compound body. Each compound is made up of four elements of air, water, fire, and soil, and the difference between the objects is the difference

Table 1: Characteristics of herbal substitutes for quit of opium addiction^[43]

Scientific name	Common English name	Used part	Daily dosage	Temperament	Modifiers	Effective material	Property
<i>C. nucifera</i> ^[58]	Coconut ^[58]	Fruit ^[58]	13/5 g of its fruit ^[34]	Warm and dry degree 2 ^[58]	Sugar ^[34] No need for modifiers in the cold tempered and olders ^[34] Sour fruits and Watermelon (<i>Citrullus</i>) vulgaris and Lemon (<i>C. lemon</i>) In the warm temperament ^[34] Medicinal barley juice (<i>H. vulgare</i>) ^[34] *	Short-chain fatty acids mainly lauric acid ^[58]	Immunomodulator ^[58] Institutional heat tonic ^[34] Fattening of the body ^[34] Manufacturer of good materials in the body ^[34]
<i>C. zedoaria</i> ^[59]	Zedoary ^[58]	Rhizome ^[58]	0/25-2 g ^[34]	Warm and dry degree 3 ^[34]	Sekanjebin (vinegar with sugar or honey) ^[34] Fresh cow's milk ^[34] Barley soup (<i>H. vulgare</i>) ^[34] Coriander (<i>C. sativum</i>) in warm temperament ^[34]	Zinjibern ^[58] Cineol ^[58]	Joy bringer ^[58] "Teriagh" (antidote) ^[58] Heat of the heart and brain and liver tonic ^[59]
<i>T. copticum</i> ^[58]	Ajwain ^[58]	Seed ^[58]	Up to 10 g ^[34]	Warm and dry degree 3 ^[34]	Mentha (<i>M. piperita</i>) ^[34] Celery (<i>A. graveolens</i>) ^[34] Caraway (<i>C. carvi</i>) ^[34] Mastic (<i>P. lentiscus</i>) ^[34]	Timol ^[58]	Laxative ^[34] "Teriagh" (antidote) ^[34] Narcotic ^[34] Hypnotic ^[34] Antihedache ^[34] Enhanced moisture from nose and throat ^[34]
<i>L. sativa</i> ^[58]	Lettuce ^[60]	Seed ^[58]	6/5 g ^[58]	Cold and dry ^[34]	Coriander (<i>C. sativum</i>) ^[34] Sweet violet (<i>V. odorata</i>) and honey ^[34]	-	
<i>M. fragrans</i> ^[58]	Nutmeg ^[58]	Fruit ^[58]	Up to 9 g ^[34]	Warm degree 2 and dry degree 3 ^[34]		Eugenol ^[58]	Antidiarrheal ^[58] An effect on prostaglandin synthesis (analgesic) ^[58] Joy bringer ^[34] Inebriant ^[34] Instinctive heat preservers ^[34]
<i>P. somniferum</i> ^[58]	Poppy ^[58]	Shell ^[58]	Up to 7 g ^[34]	Cold degree 2 and dry degree 1 ^[34]	Sugar ^[34] Honey ^[34] Mastic (<i>P. lentiscus</i>) ^[34]	Morphine ^[58]	Sedative ^[58] Analgesic ^[58] Narcotic ^[34] Hypnotic ^[34] Sedative ^[58] Analgesic ^[58] Narcotic ^[34] Hypnotic ^[34] Analgesic ^[58]
<i>P. somniferum</i> ^[58]	Poppy ^[58]	Seed ^[58]	Up to 16 g ^[34]	Cold degree 2 and wet degree 1 ^[34]	Sugar ^[34] Honey ^[34] Mastic (<i>P. lentiscus</i>) ^[34]	Morphine ^[58]	
<i>C. arabica</i> ^[58]	Coffee ^[58]	Fruit ^[58]	Up to 15 g ^[58]	Warm degree 1 and dry degree ^[58]	Rock candy ^[58] Saffron (<i>C. sativus</i>) ^[58]	Caffeine ^[58]	Sedative ^[58] Pain relief ^[58] Enhanced muscular vibrations of neurological origin ^[58] Enhanced moisture from nose and throat ^[34] Body organs tonic ^[34]
<i>H. niger</i> ^[58]	Henbane ^[58]	Seed ^[58]	From white 1.5 g to 2.25 g ^[34]	Cold and dry degree 3 ^[34]	Honey ^[34] Anise (<i>P. anisum</i>) ^[34]	Hyoscyamine ^[59] Hussain ^[59] Scopolamine ^[59] Atropine ^[59]	

Contd...

Table 1: Contd...

Scientific name	Common English name	Used part	Daily dosage	Temperament	Modifiers	Effective material	Property
China root (<i>S. china root</i>) ^[58]	-	Root ^[58]	No specific value ^[34]	Warm and wet degree 1 ^[34]	No need for modifiers ^[34]		Cleaning of blood ^[34] Hypnotic ^[34] Instinctive heat strengthening ^[34] Heart, brain, liver, stomach, and digestive tract tonic ^[34] "Teriagh" (antidote) for Cold and deadly spices ^[34] Instantaneous heat wave ^[34]
<i>Castoreum</i> ^[58]	Caster ^[58]	Testis ^[58]	Up to 0/5 g ^[34]	Warm degree 3 and dry degree 2 ^[34]	In warm temperaments violet syrup (<i>viola odorata</i>) ^[34]		
<i>S. nux-vomica</i> ^[58]	Nux vomica ^[58]	Seed ^[58]	From 0.25 to 0.5 g 4.5 g of it, is deadly ^[34] 0.5 to a maximum of 3 g >3 g fatal ^[34]	Warm and dry degree 3 ^[34] Warm and dry degree 3 ^[34, 38]	Sugar ^[34] Almond (<i>A. communis</i>) oil ^[34] Almond (<i>A. communis</i>) oil ^[34]	Strickin ^[58] Glycortin ^[58]	Pain reliever ^[58] Very diarrheal ^[58] Waste cleaner from head ^[58] Relieves joint pain ^[34]

*Peel the barley (*H. vulgare*) and boil the water at a ratio of 1 to 14 or 20 until the barleys are well cooked and then smooth. This is medical barley water.^[44, 50] *C. nucifera*=Cocos nucifera, *C. lemon*=Citrus lemon, *C. zedoaria*=Curcuma zedoaria, *H. vulgare*=Hordeum Vulgare, *T. copiticum*=Trachyspermum copiticum, *C. sativum*=Coriandrum sativum, *L. sativa*=Lactuca sativa, *M. piperita*=Mentha piperita, *Apium graveolens*=Apium graveolens, *C. carvi*=Carum carvi, *P. lentiscus*=Pistacia lentiscus, *M. fragrans*=Myristica fragrans, *C. sativum*=Coriandrum sativum, *V. odorata*=Viola odorata, *P. somniferum*=Papaver somniferum, *P. lentiscus*=Pistacia lentiscus, *C. arabica*=Coffea arabica, *C. sativus*=Crocus sativus, *H. niger*=Hyoscyamus niger, *P. anisum*=Pimpinella anisum, *S. china*=Smilax china, *S. nux-vomica*=Strychnos nux-vomica, *I. hederacea*=Ipomoea hederacea, *A. communis*=Amygdalus communis, *C. zedoaria*=Curcuma zedoaria

in the amount of these elements. That is, the amount and proportion of each of these elements determine the composition of the compound. The temperaments are generally divided into 9 main categories: warm, cold, dry, wet, warm and dry, warm and wet, cold and dry, cold and wet.^[50] The quality of warmth, coldness, dryness, and wetness has four levels, called grade, and the higher the quality of the drug, the greater its effect on the body.^[51-53] Eating one lentil (*Lens culinaris*) (Grain is the unit of measure of mass equal to 64/89891 mg. It means grain of wheat (*Triticum aestivum*) or barley (*Hordeum vulgare*). From the Bronze Age to the renaissance, the average mass of wheat or barley was a fraction of the official mass, but no real grain was used in any country.^[54] A search in the books of Persian medicine and authoritative sites showed that the unit of measurement of lentils does not exist and here seems to be a volume equivalent to a lentil seed (Author's explanation) and maximum up to one gram orally is permitted and eating 6 g of it kills a person and in general, eating more than 0.5 g is forbidden.^[34, 44] Persian doctors have also estimated its lethal amount to be from 2.25 to 4.5 g.^[55] It has been known for up to 50 years unless heat, cold, humidity, and dust do not mix it with other things.^[34, 44] Opioids can cause a lot of damage if used repeatedly.^[18-25] So the opiate addict should be left out. But the quit should be gradual. It has been found that most opiate addicts suddenly become ill and even die of various complications such as diarrhea, bloody diarrhea, and loss of appetite.^[44] Gradually, it should be postponed and reduced. Postponement means that the addicted person is presumed to be opium today before sunrise, consuming tomorrow shortly after sunrise, although this distance is only a minute. So that within 1 month, 1 h delayed use time. Then, try to increase the distance so as to increase the consumption time by 4 min or 5 min and reach the limit of 2 h or 3 h in the second month. Therefore, it prolongs the delay so that it reaches 6 h or more and even reaches 12 h. Whenever the interval between two doses is consumed overnight, it is very easy to quit and when 4 nights pass and the addict does not feel upset, it turns out that the person has left altogether because he has no side effects, and this method has come to the attention of Persian medical practitioners. In fact, if the delay between two doses is 1 h and wait for the body to become accustomed to it and then prolong the delay for another hour, it would not be a sudden departure, thus causing severe body weakness. It cannot because the body is getting used to it. The delay in use should also be accompanied by a gradual decrease in opioid use. Reduction gradually has several types:

1. Weigh the consumed opium with wet sticks. The willow wood (*Salix alb*) is the best. Because its moisture is high and it dries quickly. When the wood dries or close to dry, replace it with fresh wood that its weight is the same as dry wood. Continue to do

Table 2: Joy bringer medicinal plants that help quit of opiate addiction^[43]

Scientific name	Common English name	Used part	Daily dosage	Temperament	Modifiers	Effective material	Property
<i>C. sativus</i> ^[58]	Saffron ^[58]	Stigmas ^[58]	Up to 6.5 g of it, is joy bringing 10 g of it is deadly ^[34]	Warm degree 2 and dry 1 ^[34,58]	Anise (<i>P. anisum</i>) ^[34,58] Barberry (<i>B. vulgaris</i>) fruit extract ^[58] Sekanjebin (vinegar with sugar or honey) ^[34]	Crocine ^[58]	Strong joy bringer ^[34] Senses tonic ^[34]
<i>P. harmala</i> ^{[58]*}	Wild rue ^[59]	Seed ^[59]	From 4.5 g to 9 g ^[34]	Warm degree 3 and dry degree 2 ^[34]	Sour fruits such as lemon (<i>C. limon</i>) ^[34]	Harmine ^[59] Harmaline ^[59] Harmalo ^[59]	Strengthening the heart ^[34] Central nervous system tonic ^[59]
<i>P. alkekengi</i> ^[58]	Winter cherry ^[58]	Ripe fruit ^[58]	Up to 16 g ^[34]	Cold degree 2 and dry degree 2 ^[34]	Gole ghand Rose (<i>R. damascena</i>) flowers with honey or sugar ^[34]	Physalines ^[58] Xaxanthin di palmitic acid (acid ester) ^[58]	Dryness of opioid moderator ^[34] Help to digestion ^[34] Joy bringer ^[34]
<i>B. carterri</i> ^[58]	Olibanum ^[58]	Resin gum from shaving trunk shell ^[58]	300 mg 3 times daily ^[58] 1.5 g/day ^[34]	Warm degree 2 and dry degree 2 ^[34]	Rice (<i>O. sativa</i>) and sugar ^[34]	Basilic acid ^[58]	Joints pain reliever ^[58] Heart tonic ^[34] Memory strengthening ^[34]
<i>C. arabica</i> ^[58]	Coffee ^[58]	Fruit ^[58]	15 g ^[45]	Warm degree 1 and dry degree 2 ^[58]	Rock candy ^[58] Saffron (<i>C. sativus</i>) ^[58]	Caffeine ^[58]	Pain reliever ^[58]

**Peganum harmala* has toxic effects.^[59] *C. sativus*=*Crocus sativus*, *P. anisum*=*Pimpinella anisum*, *B. vulgaris*=*Berberis vulgaris*, *Citrus limon*=*Citrus limon*, *Peganum harmala*=*Peganum harmala*, *P. alkekengi*=*Physalis alkekengi*, *R. damascena*=*Rosa damascena*, *B. carterri*=*Boswellia carterii*, *O. sativa*=*Oryza sativa*, *C. arabica*=*Coffea arabica*, *Crocus sativus*=*C. sativus*

so until the person gradually reduces the amount of their consumed opium and quits easily

2. Weigh the consumed opium with millet (*Panicum miliaceum*) seed or poppy (*P. somniferum*) seed and the like, and reduce one millet (*P. miliaceum*) or poppy (*P. somniferum*) seed daily. If the person becomes weak while reducing opium at the same time, keep the amount constant for a period of time. So that the body gets used to it. Sometimes, the amount of consumed opium is reduced by gradually replacing it with appropriate spices. They should then be gradually and slightly reduced in intake, with appropriate spices, such as henbane (*Hyoscyamus niger*) or poppy (*P. somniferum*) or lettuce (*Lactuca sativa*) or Castor testis or nutmeg (*Myristans fragrans*), ajwain (*Trachyspermum copticum*) or with baked bread dough.^[44] Therefore, there are many variations that we describe individually to clarify the truth of each and how to use them.^[43]

Henbane (*Hyoscyamus niger*)

It is the best and most favored spice in substitution for opium for several reasons. Henbane is a moderator of opium dryness due to being greasy, and opium is a strengthening of henbane. Therefore, it is less of a compound that contains opium and Persian doctors have not put henbane in it the same weight or twice the weight its opium.

Coconut (*Cocos nucifera*)

Another practice is to replace the opium with coconut, which is one of the best replacements, take raw coconut

half clay, that its pulp is so closed and there is a lot of water in it and the outer skin is green and pierce its head, then put 225 or 270 g of pure opium in a tube and put it inside the coconut, and hold its head firmly for five or 6 months. Then cut its shells thoroughly, grind its pulp with its juice and opium, and divide the resulting dough into pieces that are equal to the opium consumed. Then, the addict eats it, and this is a good measure to remove the opium and drought and after some time, make another coconut in the form of one-third or a quarter less opium than before. And so continue until the opium is gone and they can add some coconut pulp to the coconut mixed with the first opium so that eventually it will only be the simple coconut pulp that the addict consumes.

Zedoary (*Curcuma zedoaria*)

But the rule of quitting the habit of opium with zedoary is to gradually reduce the amount of consumed opium by the size of a poppy (*P. somniferum*) seed or more every day and add as much zedoary every day as it is, until stays just zedoary. Then every day, as much opium is consumed, just eaten zedoary. If they want to leave the zedoary, they will gradually reduce the zedoary again and again, so that it does not remain. It is the best way for opiate quitting without weakness. Because zedoary is "Theriagh" and has warmness, therefore strength general body powers and instinctive heat, and its effect reaches the brain and organs and brings joy, thus replacing the vitality derived from opium, but better than that.^[44] "Theriagh" or antidote is a drug that boosts instinctive heat and power and spirit.^[34] Instinctive heat is the heat attributed to instinct, and the instinct is the nature of the

body, the inherent heat that exists from the beginning of creation and disappears with death.^[56] Power is the forces that trigger the body's interactions. The powers in the human body are of three categories: natural, animal, sensual. Spirit means the medical spirit, the kind of substance that comes from vapors of good morals (the sputum of the psychoactive substance that comes from digestion in the digestive tract and has four types: blood, Belgium, bile, and soda are made good (the medical spirit), the spirit is gentle and fluid and moving.^[53] Again, unlike opium because of cold, it does not weaken instinctive heat and strengths and appetite over time, it does not turn the face yellow and does not blossom.^[44]

Coffee (*Coffea arabica*) and poppy (*Papaver somniferum*)

Continued use of coffee is useful in quitting opium addiction, but the poppy shell can cause stomach upset and loss of appetite and can cause bloating but if the poppy shell mixing and boiling some spices is not harmful and has many benefits. Modifier spices are drugs that eliminate or reduce the harm of another drugs.^[44] Thus, 45 g of poppy seed, 22.5 g of almond (*Amygdalus communis*), 2.25 g of black pepper (*Piper nigrum*), 2.25 g of clove (*Eugenia caryophyllata*), 1.125 g of mastic (*Pistacia lentiscus*), 1.125 g of valerian (*Valeriana officinalis*), 1.125 g of cinnamon (*Cinnamomum verum*), 1.125 g of nutmeg (*M. fragrans*), 0.25 g of saffron (*Crocus sativus*), 22.5 g of poppy shell in 450 g of boiling water for up to 300 g.^[43]

China root (*Smilax china* root)

Many people have quit with that.^[57]

Castor testis

It is useful in strengthening the body and eliminating the toxicity of opium and in reducing the amount of opium consumed by replacing it and helping to strengthen the body's nature.

Nux vomica (*Strychnos nux-vomica*)

It is a toxic plant,^[43] and detoxification of its seeds requires specific steps,^[58] but its moderate amount is not toxic and lethal and has been shown to favor opiate quitting.

Morningglory (*Ipomoea hederacea*)

People eat 2 or 3 seeds which has a great effect on quitting opium.^[43]

It should be noted that henbane (*H. niger*) can be a substitute for opium and is not harmful to other opiates such as hemlock (*Conium maculatum*) and mandrake (*Mandragora officinarum*) fruits and its root, and datura (*Datura stramonium*) and cannabis (*Cannabis sativa*) and nux-vomica (*Strychnos nux-vomica*) and morning

glory (*Ipomoea hederacea*) and the like, none of which is harmless.^[43] But two experienced opiates have become opiates, one a coffee and the other a china Root (*Smilax china*) root.^[57] The characteristics of useful medicinal plants for quitting opium addiction from the perspective of Iranian and modern medicine are mentioned in Tables 1 and 2.

Switching to compound drugs

Using compound drugs that contain opium is like escaping from the rain and standing under the gutter. However, with the combination of opiate-containing drugs with tonic spices, the reduction method can gradually be abandoned.^[43] Tonic means the generous and the medicinal is said to modulate the organs and temper and keep the body from pests.^[37] A useful order is as follows:

Zedoary (*Curcuma zedoaria*) 9 g, saffron (*C. sativus*) 22.5 g, valerian (*V. officinalis*) 9 g, sunspurge (*Euphorbia Helioscopia*) 4.5 g, pellitory of Spain (*Anacyclus pyrethrum*) 4.5 g, Pepper (*P. nigrum*) 9 g, celery (*Apium graveolens*) seed 13.5 g, cinnamon (*C. verum*) 13.5 g, zerumbet (*Zingiber zerumbet*) 13.5 g, aloeswood (*Aquilaria agallocha* Roxb) 13.5 g, China rhubarb (*Rheum officinale*) 13.5 g, poppy (*P. somniferum*) 67.5 g, henbane (*H. niger*) 45 g, and Arabic gum (*Acacia senegal*) 22.5 g.

Mix this with rose flower (*Rosa damascene*) water "Golab," then replace the oral opioids that the person consumes with the drug during the day. To give him/her as much. But slightly less so because the drug has a potency that the nature of the body can suffice less than a person's habit of eating.

The other version of the compound below is to reduce the weight of the opium to the weight of pea (*Cicer arietinum*) or barley (*Hordeum Vulgare*) seed and add 2.25 g of the following compounding drug, as well as gradually adding to the alternative compound and to some extent. That can cause delays in taking a person to leave in the morning. Eat 6.75 g of this compound, which is highly potent and may not be more useful than this drug.

Cinnamon (*C. verum*) 22.5 g, spotted orchids (*Orchis mascula*) 45 g, Morningglory (*I. hederacea*) 45 g, sun spurge (*E. Helioscopia*) 9 g, pellitory of Spain (*A. pyrethrum*) 13.5 g, pepper (*P. nigrum*) 18 g, henbane (*H. niger*) 9 g, castor testis 58/5 g, nutmeg (*M. fragrans*) 63 g, Mastic (*P. lentiscus*) 63 g, *Elettaria cardamomum* 18 g, cannabis (*C. sativa*) 9 g, mace (the thin-walled woody wall of the outer core of nutmeg core in Persian medicine is called basbasa (mace) (*M. fragrans*) 13.5 g, ash tree (*Fraxinus excelsior*) 22.5 g, imperforated pearls (*Symphoricarpos albus*) 13.5 g, saffron (*C. sativus*) 13.5 g, nux-vomica (*S. nux-vomica*) 45 g, creosote bush (*Larrea tridentate*) 103.5 g.

In the above composition, it is not opiate but is substituted for the preservation of spirit and power.^[43]

Discussion

The abuse of opium causes the transformation of the natural state, so it is considered in the line of cannabis (*C. sativa*),^[47] and in the Islamic religion, its consumption is like forbidden wine.^[60,61] Opium is poisonous and has a cold temperament, so it results in reduced consumption of spirits, blood, and other body warmth sources, and this weakness and the prevalence of coldness increase day by day. As a result, the body's function is not as it should be, as most verbs require heat, and as the body's temperature decreases, the body's actions become impaired, and one's desire for movement and vitality disappears.^[43] Opium is a toxin^[47] that has a general effect on the body.^[52] After absorption, its effects appear throughout the body and its oral effect is not limited to the gastrointestinal tract.^[47] Therefore, it can be very harmful if you are addicted to it and do not comply with the conditions of use and dosage and use without combination with its modifiers and can even lead to death.^[44] With continued abuse of opium, the euphoria of the 1st day will not develop unless the dose of opium is increased, which eventually results in a very weak body but not optimal euphoria, but if the person reduces opium consumption in quantity and duration, both increase euphoria and do not weaken the body and not reduce appetite.^[43] In Persian medicine sources, there is no mention of opiate consumption in a smoky way and its use is expressed orally.^[34,43,44,45,52,55,62,63] Nowadays, the contamination of drugs with toxic substances such as lead is one of the problems with their use.^[32,64-67] In the past, this problem has existed, as in the books of Persian medicine, it has been mentioned that the price of opium is high because of the need of the people for it. That has caused it to mix with other things to sell it for a much lower price, and because of this mix, the taste and color of the opium do not change and because of its high effect on the body does not cause weakness or changes in the senses, cheating is high and its purity is rare.^[43] According to doctors of Persian medicine, the habit of consuming something that is not useful is less harmful than something that is very useful, but one is not used to it. But unhealthy nevertheless damages the body and if the days are consumed too much, the damage will increase, even if it is low, so it is necessary to gradually replace the useful. So the opium addict should be left out. But quitting it at once has a lot of damage and it's better than quitting at once. Because although both have general disadvantages, the sudden departure is causing damage, But consuming it in the future will do damage, and in Persian medicine, no sane person prefers an uncertain future over an uncertain future. But addicts imitate others who are not worthy of imitation.

According to rational and Islamic law, quitting opium is necessary but it must be gradual. If the opioid addiction is gradual, the bodies that have become lean for a long time gradually return to their proper nutrition over time. Therefore, in a body that is weakened and attenuated by addiction, there should be a gradual reduction and a delay in consumption. Although some opium substitutes are considered inebriant in Persian medicine, the drunkenness of the opiate is other than the drunkenness to the jurists. Jurist, one who knows the science of the religion of Islam. Persian doctors have considered opiates from inebriants, such as henbane (*H. niger*), datura (*D. stramonium*), none of which are inebriant in the Islamic religion. In addicts, there is a predominance of "Soda", and the symptoms of this sputum are fear. Therefore, opioid addicts are constantly afraid that they will have an opiate withdrawal and reduction in their opioid levels. And if the imitation of the addict is in a way that he or she does not know, it will be reduced and even abandoned in a short time, and all the consumables will be free of opium so that the person goes out of his or her imagination and starts doing something. And it's been a long time since he's or she's forgotten, but if he/she remembers it at the same time she feels weak and distressed, but if he/she does not remember it would not do his/her any damage. One of the strengths of this study was its newness and novelty because so far no study has been done in this field that has expressed the views of Persian medicine in the treatment of opium addiction. One of the weaknesses of this study was that we did not find a study in our advanced research that has been done with the view of Persian medicine in the field of quitting drug addiction, clinical or animal work that can be cited. Finally, it is suggested that researchers use the content of this article to design and conduct clinical trials and animal studies to open a scientific way to use more valuable views of Iranian medicine in this field.

Conclusion

This study was a step toward demonstrating the cognition that Persian doctors had about the various properties of medicinal herbs and how to make herbal remedies with the least side effects, and the treatments they used hundreds of years ago to quit opioid addiction. It is necessary to pay attention to the authentic sources of Persian medicine and to the scholars of this knowledge of medicine for the treatment of diseases. It is hoped that researchers will undertake more extensive studies on opium addiction, one of the major problems of today's life, and effective steps will be taken to improve the quality of life of patients with this drug, using the therapeutic methods of Persian medicine.

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Conflicts of interest

There are no conflicts of interest.

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