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**TRUTHS AND MISCONCEPTIONS OF THE PLANTS USED IN TRADITIONAL
MEDICINE**

ЭЛДИК МЕДИЦИНАДА КОЛДОНУЛГАН ӨСҮМДҮКТӨР ЖӨНҮНДӨ ЧЫНДЫКТАР
ЖАНА ТУУРА ЭМЕС ТҮШҮНҮКТӨР

ПРАВДА И ЗАБЛУЖДЕНИЯ О РАСТЕНИЯХ, ИСПОЛЬЗУЕМЫЕ В ТРАДИЦИОННОЙ
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TRUTHS AND MISCONCEPTIONS OF THE PLANTS USED IN TRADITIONAL MEDICINE

Abstract

Plants has an important place in people's lives since the existence of the world. Plants have always been in our lives, sometimes as food, and sometimes to find healing. Plants have been one of the biggest reasons why people settled down. While people obtained great healing from plants, they also used it for different purposes. For example, the accidentally discovered taxane plant was once used to poison people. In addition, the taxane plant is one of the most used plants in breast cancer today. While morphine was used as a great pain reliever in the past, it is also used as a recreational drug today. A substance that is a great source of healing also causes serious damage to the human body, even death. At the same time, even if the plants are not used for wrong purposes, their misuse also has negative consequences for humans. For example, while the chasteberry is a miraculous plant for women, it is a plant that men should stay away from. Since it increases the estrogen level, it gives good results in women and causes infertility in men. Examples like this would not end by counting. With this article, while explaining what kind of healing the plants contain and their harms; In addition, there is information about how people should use it according to age, gender and disease status.

Keywords: Traditional Medicine, Herbal Medicine, Phytotherapy, Alternative Medicinal Plants.

ЭЛДИК МЕДИЦИНАДА КОЛДОНУЛГАН ӨСҮМДҮКТӨР ЖӨНҮНДӨ ЧЫНДЫКТАР ЖАНА ТУУРА ЭМЕС ТҮШҮНҮКТӨР

Аннотация

Өсүмдүктөр дүйнөсү жаралгандан бери адамдардын жашоосунда маанилүү орунду ээлеп келет. Өсүмдүктөр ар дайым жашообузда, кээде азык, кээде дары катары колдонулган. Өсүмдүктөр элдин отурукташуусунун негизги себептеринин бири болгон. Адамдар өсүмдүктөрдөн көп шыпаа таап, аларды түрдүү максаттарда да колдонушкан. Масалы, кокустан табылган таксан өсүмдүктөрү бир кезде адамдарды уулантуу үчүн да колдонгон. Мындан тышкары, таксан өсүмдүктөрү бүгүнкү күндө эмчек рагы үчүн эң көп колдонулат. Мурда морфин эң сонун ооруну басандатуучу каражат катары колдонулса, бүгүнкү күндө ал эс алуу дары катары да колдонулат. Эң сонун айыктыруучу булак болгон зат да адамдын организминде, өлүмгө чейин олуттуу зыян келтирет. Ошол эле учурда өсүмдүктөр өз максатына ылайык пайдаланылбаса да, аларды туура эмес пайдалануу да адам үчүн терс кесепеттерге алып келет. Мисалы, витекс аялдар үчүн керемет өсүмдүк болсо, эркектер андан алыс болушу керек. Ал эстроген деңгээлин жогорулаткандыктан, аялдарда жакшы натыйжаларды берип, эркектерде тукумсуздукка алып келет. Бул сыяктуу мисалдар санап бүтпөйт. Бул макалада өсүмдүктөрдүн кандай дарылык касиеттерин жана алардын зыянын түшүндүрөбүз. Мындан тышкары, адамдар жашы, жынысы жана оорунун абалына жараша аны канттип колдонуу керектиги жөнүндө маалыматтар берилет.

Ачык сөздөр: салттуу медицина, чөптөр, фитотерапия, альтернативдик дары өсүмдүктөрү.

ПРАВДА И ЗАБЛУЖДЕНИЯ О РАСТЕНИЯХ, ИСПОЛЬЗУЕМЫЕ В ТРАДИЦИОННОЙ МЕДИЦИНЕ

Аннотация

Растения занимают важное место в жизни людей с момента существования мира. Растения всегда были в нашей жизни, иногда как пища, а иногда и как лекарство. Растения были одной из главных причин, по которой люди осели. Хотя люди получали большое исцеление от растений, они также использовали их для разных целей. Например, случайно обнаруженное растение таксан когда-то использовалось для отравления людей. Кроме того, таксановое растение сегодня является одним из наиболее часто используемых растений при раке молочной железы. В то время как морфин использовался в качестве отличного болеутоляющего средства в прошлом, сегодня он также используется в качестве рекреационного наркотика. Вещество, которое является отличным источником исцеления, также наносит серьезный ущерб человеческому телу, вплоть до смерти. В то же время, даже если растения используются не по назначению, неправильное их использование также имеет негативные последствия для человека. Например, в то время как витекс является чудотворным растением для женщин, мужчинам следует держаться подальше от него. Поскольку он повышает уровень эстрогена, он дает хорошие результаты у женщин и вызывает бесплодие у мужчин. Примеры, подобные этому, не заканчиваются подсчетом. В этой статье, объясняя, какие целебные свойства содержат растения и их вред. Кроме того, есть информация о том, как люди должны использовать его в зависимости от возраста, пола и статуса заболевания.

Ключевые слова: традиционная медицина, фитотерапия, альтернативные лекарственные растения.

Introduction

The plant kingdom, which has adapted to almost all parts of the world, has always occupied an important place as an important food source for human beings, and has become indispensable through the discovery of agriculture and its ability to be cultured and controlled. (1) The effects on the body discovered by the consumption of the first cultivated plants and in addition to these, new alternative plant species that were cultivated or discovered in nature, have increased their use for medicinal purposes significantly with the accumulation of experience. (2) This primitive medical science, which was intertwined with botanical science before modern medicine, has been used to be called "traditional medicine" because of the advances and discoveries to obtain modern medicines and these plant extracts can also be obtained synthetically (2, 3).

That's why traditional medicine is used today for the purpose of adjunctive or preventive in daily life, protection from diseases along with modern treatments. The methods of treatment and prevention of diseases with herbs, which reached their peak in ancient Egypt, the first Indian and Chinese civilizations and the golden age of Islam, continue to develop today with the discovery of similar properties of some new plants. Although it is not accepted as the main treatment in modern medicine, many medical doctors state that the correct use of these plants is prophylactic and partial therapeutic (2-4). At this point, the misuse of these plants leads to very serious problems. Many people experience serious health problems because of the excessive use of the dose, the wrong method of use (such as oral use instead of topical use), contraindications during use with drugs, use with wrong plants and substances, and even these wrong uses sometimes result in death (5).

Methods. Experimental protocol and timeline. The use of plants in traditional medicine is important because of the above-mentioned reasons, in the light of the information obtained from the right sources.

The properties and the problems that may be caused by their misuse of 10 plants or plant-derived substances commonly used in traditional medicine are listed below in the light of various studies done in the last 20 years.

***Aristolochia fangchi*:** A case series of 104 women who developed Chinese herb nephropathy following ingestion of a weight loss by consuming herbal product containing the herb was reported. The study showed that this herb is not only nephrotoxic, but also caused end-stage kidney disease in 43 patients and also a potent carcinogen (6, 7).

A similar example the case that led to dialysis or kidney transplant in Belgium as a result of interstitial kidney fibrosis after at least 70 people used an herbal preparation made from undesirable plant species to lose weight (7).

***Ephedra sinica* (Ephedra):** It is the herb used to cause weight loss. In another case series, seven patients were identified who used a supplement containing norephedrine, sodium usniate, caffeine, and 3,5-diodothyronine in addition to yohimbine. All patients developed acute hepatotoxicity within three months and all recovered spontaneously after quit usage of this product. A recent review found that 31% of 140 cases, including 13 cases of permanent disability and 10 deaths, were definitely or probably due to the use of the ephedra plant. Combining ephedra with caffeine increases the risk of potentially serious side effects (6).

The United States (U.S.) Food and Drug Administration (FDA) banned the sale of dietary supplements containing ephedrine alkaloids (compounds found in some types of ephedra) in U.S. in 2004 (8).

***Vitex agnus-castus* (Chaste Fruit):** Contains sex steroids, vitamins (folic acid, thiamine, pyridoxine, riboflavin, cholecalciferol, tocopherol), tannin and resin. It is thought to show its effect by changing the release of FSH (follicle stimulating hormone) and LH (luteinizing hormone) from the pituitary. It is recommended in patients with severe acne in the premenstrual period. Although side effects are not reported other than gastrointestinal system complaints and skin rashes, excessive use can cause infertility in men (9).

***Arctium lappa* (Burdock):** It is a plant used among the people as a disinfectant. It is applied directly to the skin for wrinkles, dry skin (ichthyosis), acne, psoriasis and eczema. There is no clinical study yet enough (10).

***Melaleuca alternifolia* (Tea Tree) Oil:** This oil is obtained from the leaves of the plant. The efficacy of 5% tea tree oil and 5% benzoyl peroxide gel was compared in 124 acne patients and it was shown that tea tree oil was as effective as benzoyl peroxide. Side effects such as dryness, irritation and burning were less common than benzoyl peroxide. When applied twice daily for 45 days, tea tree reduces various acne symptoms, including acne severity (11).

Tea tree oil can cause skin irritation and swelling. People with acne sometimes experience dry skin, itching, burning, and redness. Applying a product containing tea tree oil along with lavender oil to the skin may not be safe in children who have not yet reached puberty. These products can have effects that can disrupt normal hormones in a child's body. This has resulted in some men with abnormal breast growth called gynecomastia. Tea tree oil is well known to have serious side effects when taken orally and should never be taken orally (12).

***Aloe vera*:** Glycyretinic acid in its structure has an adrenocorticode-like effect. In a double-blind controlled study of 60 patients with mild to moderate poria, 0.5% *Aloe vera* cream was shown to be more effective than placebo (13).

The gel and juice produced from the leaves of *Aloe barbadensis* which is another closely related species are used on wounds and burns. *Aloe vera* gel has been shown to reduce itching, burning sensation and scar formation in patients with radiodermatitis. It is used in chronic leg ulcers, ulcers due to frostbite trauma, burns and surgical wounds (9, 14).

Applications as topical may develop redness, burning, tingling sensation, and rarely generalized eczema in sensitive individuals. Allergic reactions mostly develop due to anthraquinones such as aloin and barbaloin. It is recommended best to do a small test on the skin of the forearm before the application and observe the development of an allergic reaction (15). No contact sensitivity was detected in any of the results of the patch test with *Aloe vera*, which included 702 patients (16). The reason why this sensitivity does not occur is thought to be related to the extraction of aloe gel from the stem part, and eczematous or anaphylactoid reactions were thought to be related to leaf extracts containing anthraquinone. (17) Frequent use of products as patch form containing *Aloe vera* gel is not recommended due to its allergic potential (18). Alvarez et al. suggests that *Aloe vera* may trigger urticaria (19). Abdominal cramps, diarrhea, red urine, hepatitis, worsening of constipation or constipation dependence may be observed in oral intake. Long-term use may increase the risk of colorectal cancer (12). It has also been suggested that *Aloe vera* may rarely cause thyroid dysfunction

(20). Its laxative effect can cause electrolyte imbalance and low potassium levels. Its use has contraindication in those who are allergic to plants of the Liliaceae family. Since oral aloe theoretically causes uterine contractions, its use is contraindicated in pregnant women and lactating women as it may cause gastrointestinal stress in infants. The combination of topical steroids and *Aloe vera* gel may interact with each other. Applying aloe to the skin may increase the absorption of steroid-containing creams such as hydrocortisone. Due to its potassium-lowering effect, digoxin and digitoxin can increase their side effects and change their effectiveness. The combined use of *Aloe vera* and furosemide may increase the risk of lowering potassium. It may reduce blood sugar levels and interact with oral hypoglycemic drugs and insulin. Therefore, it is necessary to be careful in the use of *Aloe vera* with its broad-spectrum clinical properties (12, 15).

Capsaicin: It is one of the hottest substances known and is found in red hot pepper (Genus: *Capsicum*). It shows its effect by preventing the accumulation of substance P, which plays a role in the transmission of pain and itching in peripheral sensory nerve fibers. It is effective in the treatment of diabetic neuropathy, osteoarthritis, postherpetic neuralgia, psoriasis and postoperative pain. It is available 0.0025% and 0.075% creams. It is observed a significant improvement in lesions of 44 patients with severe psoriasis using 0.025% capsaicin cream for six weeks. It has no side effects other than burning sensation and erythema. The use of capsaicin on open wounds and around the eyes has contraindication (9, 14).

***Arnica montana* (Wolf's Bane, Leopard's Bane, Mountain Tobacco, Mountain Arnica):** *Arnica montana* has anti-inflammatory and antithrombotic effects. Sesquiterpene lactones in its structure suppress the transcription of NF- κ B (nuclear factor-kappa B). NF- κ B controls the genes of cytokines such as IL (interleukin)-1, IL-6 and IL-8, intercellular adhesion molecules, antigen presenting cells and the cyclooxygenase enzyme (21-23). Arnica is used as a wet compress or cream in psoriasis. Systemic use can lead to cardiovascular, neurological, gastrointestinal side effects and death (9).

***Melissa officinalis* (Lemon Balm):** Essential oil produced from *Melissa officinalis* is effective in herpes simplex. In a double-blind, randomized controlled study involving 116 patients, it is shown that the cream containing 1% lemon balm extract completely regressed herpes lesions on the eighth day (24). In the second placebo-controlled study involving 67 patients, the application of lemon balm extract in the first 72 hours shortened the lesion healing time. Echinacea (*Echinacea purpurea*), peppermint (*Mentha spp.*) and propolis are other herbs thought to be effective against herpes infections (25).

***Glycine max* (Soy):** Soy milk and soy proteins suppress PAR-2 (protease activated receptor 2) activity, which affects melanosome uptake into keratinocytes. Soybean trypsin inhibitory factor is thought to be effective. Studies have shown that soybean extracts regress pigmented skin lesions. Soy also has anticarcinogenic and antioxidant effects. Mulberry leaf and pine bark (pycnogenol) extracts are among other herbs thought to be effective in the treatment of pigmentation (26-28).

Monkeys fed soy food have also been shown to have 70 percent lower testosterone. This is probably the reason of why young far east priests eat soy to suppress their sexual desires. In recent years, excessive consumption of soy foods, which are a source of herbal estrogen, has been shown to be responsible for breast enlargement (gynecomastia) seen in boys (29).

Conclusion

Although the use of plants to benefit from their therapeutic and disease prevention properties is based on knowledge experiences as old as human history, it should be consumed with accurate information due to possible side effects and undesirable effects. These plants and extracts, which consist of intense extracts of frequently consumed plant foods such as capsaicin that are generally excluded from nutritional purposes should not be relied upon random sources due to reasons; misuse of doses, use in the wrong periods such as pregnant, breastfeeding, pre-adolescence individuals and usage in the wrong gender, inhibiting treatment especially in chronic diseases such as cancer or acute serious diseases, causing the progression of the existing disease, creating a contraindication with certain medical drugs. Conscious and correct use of these plants, which have a very important place in traditional medicine, can reduce the risk of catching diseases, enable simple diseases to be overcome easily, facilitate the treatment of some diseases and increase the quality of life. For all these reasons, it is important to investigate the correct use of plants the effects of which are newly discovered, accompanied by traditional medicine studies.

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