

ƏDƏBİYYAT
İCMALIЛИТЕРАТУРНЫЕ
ОБЗОРЫLITERATURE
REVIEWS

PHYTOTHERAPY IN PREGNANT WOMEN

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Modern herbal medicine, being an alternative to drug treatment, is becoming increasingly widespread in clinical practice. Almost 80% of pregnant women in the first three months of conception, and later during pregnancy, suffer from various pathologies and syndromes. Every second woman, at the time of pregnancy, has one or another diagnosis of a chronic pathology, sometimes which poses a threat of miscarriage or termination of pregnancy, as well as a threat to the health of the mother and unborn child. Such diseases include heart rhythm disturbances, diabetes mellitus, anemia, hypertension, rheumatism, arterial hypotension, bronchial asthma, pyelonephritis, glomerulonephritis, diseases of the thyroid gland, adrenal glands, congenital and acquired heart defects, and others. Many synthetic medications have a number of contraindications during pregnancy, but pharmacotherapy and maintaining the body of a pregnant woman with chronic pathology is necessary. Herbal medicines practically do not cause side effects and can be prescribed as independent long-term treatment or in combination with other medications. However, medications, herbs and supplements should be used with extreme caution during pregnancy as they may cause harmful effects on the mother and fetus.

Keywords: pregnancy, herbal medicine, fetus, medicinal plants, effectiveness and safety.

The use of herbal medicines, which are defined as drugs derived from plants including those with therapeutic benefits, is the most popular and is used both for the general population and for pregnant women around the world. The prevalence of medicinal plant use among pregnant women in the Middle East ranges from 22.3% to 82.3%. [1, 2]. The effectiveness and versatility of the action of medicinal herbal remedies, as well as the safety of their use, make herbal medicine indispensable in obstetrics and gynecology [3, 4], including in perinatology [5], where safety to the fetus is a fundamental issue. It is important to note that the advantages of herbal remedies are good tolerability and a small number of contraindications; including effectiveness, with comparison with drugs of chemical origin. Modern herbal medicine, being an alternative to drug treatment, is becoming increasingly widespread in clinical practice. Herbal medicines practically do not cause side effects and can be prescribed as independent long-term treatment or in combination with other drugs [6, 7]. The results of a series of studies show that from seven different Asian countries (2729 participants), of which 1283 (47.01%) women used one or more medicinal plants during pregnancy. The most frequently used herbal medicines were peppermint (22.8%), anise (14.7%), olibanum (12.9%), mixer seeds (12.2%) and ginger (11.5%). Of the 33 herbal

medicines identified, the plants were classified as safe for use, five with caution, eight as potentially hazardous for use during pregnancy, and information on seven herbal medicines was not available in the current literature [8].

In a study conducted by Rukh L. et al., to determine the effectiveness and safety of the herbal drug Gingocap compared to the control drug, Gingocap has the potential to relieve symptoms of nausea and vomiting. It also exhibits no side effects compared to pyridoxine, and this drug was acceptable for use in pregnant women [9].

Damasceno D. et al. In its statistical study, it was shown that during pregnancy accompanied by diabetes, a number of plant species are used for therapeutic purposes throughout the world. From the analyzed results from this research work, plant substances based on toxicological tests, their safety is confirmed [10].

Treatment with *H. rosa-sinensis*. In pregnant women with diabetes, the level of high-density lipoproteins decreased, the atherogenic index (AI) and the coronary artery risk index (CRI) increased, but the rate of embryo loss in the preimplantation period increased compared with the non-diabetic group. Improper consumption of *H. rosa-sinensis* can be harmful to healthy individuals and its use should be completely avoided during pregnancy [11].

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Pregnant rats were administered 6 to 15.20 g/liter ginger tea through their drinking water and then sacrificed on the 20th day. No maternal toxicity was observed, but embryonic loss in the study groups was twice that of controls ($P < 0.05$). No morphological defects were observed on the fruits. Among other things, it was found that fruits exposed to ginger tea were significantly heavier than control fruits. These fruits also had a more developed skeletal system. The results of this study showed that with prenatal exposure to ginger tea, there is an increase in the rate of early embryo loss and an increase in the physical development of fetuses [12]. The use of herbal medicine during pregnancy is a common practice in modern medicine [13]. Given the high incidence of herbal medicine and the very low level of disclosure, health care providers should be open to discussing the use of medicinal plants with pregnant women as this will lead to improved health outcomes. It is also recommended that commonly used herbal drugs be further studied to confirm their effectiveness and safety [14].

Major electronic databases such as EBSCO, Central Register of Controlled Trials (CENTRAL), China Network Knowledge Infrastructure (CNKI), Cochrane, Google, MEDLINE, SciVerse, Scopus and Web of Science were searched for the use of plants in the therapy of hyperlipidemia during pregnancy. As a result, a list of medicinal plants was developed that were effective for hyperlipidemia along with their effect on pregnancy. Plants effective against hyperlipidemia and safety for the fetus during pregnancy were also identified, and their dosage, complications, mechanism of action and side effects were reported. A total of 110 effective herbs for hyperlipidemia were identified and complications of 95 herbs during pregnancy were studied. It was determined that among the 55 selected plants, 12 plants with dosage and pharmacological properties are effective during pregnancy accompanied by hyperlipidemia and can be used to treat hyperlipidemia during pregnancy. It has been concluded that some medicinal plants can be used to treat hyperlipidemia during pregnancy without any significant side effects in either mother or fetus [15]. In the literature, 1023 articles were found about medicinal plants that are useful in hyperten-

sion, 1912 articles about medicinal plants that have a positive effect on hyperlipidemia, 810 articles about medicinal plants used for obesity and 1174 articles about medicinal plants for diabetes. Of the 144 plants included in the analysis, 83 were effective against hyperlipidemia, 100 against hypertension, 66 against obesity and 72 against diabetes. And also 43 plants are effective against two diseases, 14 – against three diseases, and 34 – against all four diseases. Three plants (tomato, cranberry and pomegranate) in nutritional and therapeutic doses have been found to show therapeutic effects in cardiovascular diseases, especially pre-eclampsia and hyperlipidemia during pregnancy. The results of this study argue that medicinal plants, in addition to monotherapy, can be used as polytherapy for the treatment of cardiovascular diseases [16].

In recent years, due to the evidence of high side effects associated with biosynthetic drugs, attention has been paid to the use of medicinal plants instead of chemical drugs. The present systematic review aims to evaluate the safety of herbal medicines as well as to evaluate drug interactions in herbal therapies for the treatment of hyperlipidemia. According to international research databases, including MEDLINE; Google Scholar Web of Science Sci Verse Scopus (SCOPUS); EBSCO Academic Search; Cochrane Central Register of Controlled Trials (CENTRAL); and a Chinese database (China Network Knowledge Infrastructure [CNKI]), plants with medicinal hypolipidemic properties were investigated. Of these, 85 randomized clinical trials (RCTs) were definitively evaluated in humans. A significant number of medicinal plants that are commonly used as an anti-hyperlipidemia agent may interact with various biosynthetic drugs [17].

Kumar D., et al. in their study, they assessed the synergistic effect of the polychrome composition (PHF) *Allium sativum* L., *Eugenia jambolana* Lam., *Momordica charantia* L., *Ocimum sanctum* Linn. And *Psidium guajava* L. on intestinal p-glycoprotein (Pgp). These five herbs have been traditionally used for diabetes. The result of the study shows that the pretreated polychrome composition suppresses the expression of intestinal Pgp, and this process suppresses intestinal Pgp, resulting in a decrease in functional activity. In addition, this dysregulated Pgp

expression may affect the bioavailability of Pgp substrate antidiabetic drugs [16]. That said, medications, herbs, and supplements should be used with extreme caution during pregnancy as they may cause harmful effects on the mother and fetus [18,19]. Many synthetic medications have a number of contraindications during pregnancy [20,21], but pharmacotherapy and maintenance of the body of a pregnant woman with chronic pathology is necessary. The advantages of herbal medicine are that complications of maternal health are observed much less frequently, pregnancy proceeds without drug intervention, which eliminates the risk of possible undesirable effects on the body of the woman and the fetus, effective pharmacological correction of fetal hypoxia, elimination of the teratogenic effect, as well as the condition of newborns in

most cases is not requires medical treatment. It is worth noting that other advantages of herbal remedies are good tolerability and a small number of contraindications; effectiveness comparable to chemotherapy. Herbal medicines can be prescribed for a long time as either independent treatment or in combination with other drugs, and practically do not cause side effects [22-24].

Thus, herbal medicines can be effectively used during pregnancy accompanied by various somatic diseases. Modern herbal medicine is becoming increasingly widespread in clinical practice, being an alternative to drug treatment. However, information about the effectiveness and safety of some medicinal plants is scarce. This requires further pharmacological experimental and clinical studies.

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XÜLASƏ

HAMILƏLİK DÖVRÜNDƏ FİTOTERAPIYA

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Dərman müalicəsinin alternativini olan müasir bitki mənşəli fitoterapiya klinik praktikada getdikcə geniş yayılmaqdadır. Hamilə qadınların demək olar ki, 80%-i müvafiq konsepsiyanın ilk üç ayında və daha sonra bütün hamiləlik dövründə müxtəlif patologiyalar və sindromlardan əziyyət çəkirlər belə ki, dölün düşməsi və ya hamiləliyin pozulması təhlükəsi, habelə ananın və doğulmamış uşağın sağlamlığına törənəcək təhlükə ilə üzləşirlər. Bu cür xəstəliklərə ürək ritminin pozulması, şəkərli diabet, anemiya, hipertoniya, revmatizm, arterial hipotoniya, bronxial astma, pielonefrit, qlomerulonefrit, qalxanabənzər vəzin xəstəlikləri, böyrəküstü vəzilər, anadangəlmə və qazanılmış ürək qüsurları və digərləri daxildir. Bitki mənşəli dərmanlar praktiki olaraq yan təsirlərə səbəb olmur və uzunmüddətli müalicə kimi mono və ya digər dərmanlarla birlikdə təyin edilə bilər. Bununla belə, bitki mənşəli preparatlar hamiləlik dövründə həddindən artıq ehtiyatla istifadə edilməlidir, çünki onlar ana və dölə zərər verə bilər.

Açar sözlər: hamiləlik, bitki mənşəli dərman, döl, dərman bitkiləri, effektivlik və təhlükəsizlik.

РЕЗЮМЕ

ФИТОТЕРАПИЯ ПРИ БЕРЕМЕННОСТИ

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Современная фитотерапия, являясь альтернативой медикаментозному лечению, получает все большее распространение в клинической практике. Почти 80% беременных женщин в первые три месяца зачатия и во время беременности страдают от разных патологий и синдромов. Каждая вторая женщина на момент беременности имеет тот или иной диагноз хронической патологии, который порой составляет угрозу невынашивания или прерывания беременности, а также угрозу здоровью матери и будущего ребенка. К таким заболеваниям относятся нарушения ритма сердца, сахарный диабет, анемия, гипертония, ревматизм, артериальная гипотония, бронхиальная астма, пиелонефрит, гломерулонефрит, заболевания щитовидной железы, надпочечников, врожденные и приобретенные пороки сердца, и другие. Многие медикаментозные препараты синтетического происхождения имеют ряд противопоказаний при беременности, но фармакотерапия и поддержание организма беременной женщины с хронической патологией необходима. Фитопрепараты практически не вызывают побочных эффектов и могут назначаться в качестве как самостоятельного лечения, так и в сочетании с другими лекарственными средствами. При этом, лекарства, травы и добавки следует использовать с осо-

бой осторожностью во время беременности, так как они могут привести к пагубным последствиям для матери и плода.

Ключевые слова: беременность, фитотерапия, плод, лекарственные растения, эффективность и безопасность.

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