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## Использованная литература

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## HERBAL PREPARATIONS IN THE TREATMENT OF LIVER DISEASES

### ПРЕПАРАТЫ РАСТИТЕЛЬНОГО ПРОИСХОЖДЕНИЯ В ЛЕЧЕНИИ ЗАБОЛЕВАНИЙ ПЕЧЕНИ

#### ЖИГАР КАСАЛЛИКЛАРИНИ ДАВОЛАШДА ИШЛАТИЛАДИГАН ЎСИМЛИК ПРЕПАРАТЛАРИ

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**Keywords:** hepatoprotectors, hepatocytes, oxidative stress, free radicals, bioflavonoids, cytochrome, water-soluble vitamins, selenium.

#### Annotation

Despite the emergence in the arsenal of modern hepatology of powerful drugs that can deal with the causes of liver diseases and intervene in the key links of pathogenesis, doctors continue to turn to old, "time-tested" recipes. And nowadays, in the treatment of hepatopathies, herbal medicines are widely used.

**Research problem:** Drugs, as a rule, are classified together with other medicines under the general name “hepatoprotectors,” although, strictly speaking, this term is not entirely acceptable, since it does not reflect the directivity of the effect of the drug substance. In the most common sense, hepatoprotectors are a class of diverse drugs that, regardless of the mechanism of action, increase the functional ability of liver cells to synthesize, detoxify and excrete various biological products, and support the resistance of hepatocytes to various pathogenic effects. However, the general nature of the term “hepatoprotectors”, apparently, reflects the insufficient depth of our knowledge about the pathogenesis of liver diseases, about the mechanisms of damage, regeneration, fibrosis and malignant transformation of hepatocytes. Various herbal preparations that have a therapeutic effect in liver diseases are also referred to hepatoprotectors. Among them, the most famous are the various dosage forms of spotted milk thistle, celandine, haze, artichoke, chicory, yarrow, cassia, etc. Although most herbal medicines have not passed randomized controlled clinical trials, they continue to occupy a worthy place in the treatment of various diseases of the liver and biliary tract. Such drugs cannot be classified as essential drugs with proven and predictable efficacy, with powerful potential [1].

**Relevance:** The final products of the neutralization of reactive oxygen species are water and oxygen. Secondary antioxidant protection carries out "blocking", a kind of "quenching" of radicals. Secondary protection antioxidants include: water-soluble vitamins C, P, b-carotene, ubiquinones, bioflavonoids - rutin, quercetin, citrine, hesperidin, ascorutin; lipoic xylitol, fat-soluble vitamins - A, E, K, sulfur-containing amino acids (glutathione, cysteine, methionine), cytochrome C, chelates, trace elements - selenium, zinc. A certain role in the secondary antioxidant defense is played by copper, manganese, iron, uric acid. It must be borne in mind that all links of the antioxidant system are connected by close functional bonds. For example, vitamin C restores the oxidized form of tocopherol to its active form, which has antioxidant potential. Cysteine and selenium are essential for the functioning of glutathione peroxidase, which supports the regeneration of glutathione. Lipoic acid also converts

oxidized glutathione into its active functional form. According to experimental data, the dosage forms of antioxidants help to suppress the inflammatory-necrotic reaction in the liver, inhibit the development of fibrosis, stimulate regeneration processes and reduce the risk of malignant transformation of hepatocytes [2]. Based on these experiments, the use of antioxidants (including herbal origin) in the treatment of various chronic liver diseases has been proposed, given the general pathogenetic features of their development. The therapeutic effect of many plant "hepatoprotectors" is based on filling the deficiency of antioxidant molecules in the liver cells, which makes the latter more resistant to damage. As a rule, herbal preparations also have additional beneficial effects - choleric, sedative, diuretic and others. In diseases of the liver of patients, the manifestations of concomitant biliary dyskinesia, which is manifested by pain in the epigastric region and right hypochondrium after fatty foods, nausea, bloating, and the appearance of bitterness in the mouth, are often worried [3].

**Research result:** Medicinal plants that are part of LIV.52 contribute to the elimination of dyspeptic symptoms due to the stimulation of bile formation and bile secretion (choleric and cholekinetic effect). LIV.52 increases the contractile activity of muscle fibers of the biliary tract. In alcoholic and acute viral hepatitis, a useful property of LIV.52 is its ability to increase appetite due to the effect on the center of saturation in the brain. Against the background of taking the drug, the patient's nutritional rhythm normalizes. This is an important factor in recovery, since maintaining normal caloric intake significantly improves the detoxification and protein-synthetic function of the liver. The spectrum of indications for the use of the drug for liver diseases is quite wide. LIV.52 is prescribed for acute viral hepatitis A, chronic viral hepatitis B and C, for the treatment of toxic liver lesions caused by anti-tuberculosis, antitumor, contraceptive, antibacterial, antipyretic drugs, alcoholic liver disease, in the initial stages of liver cirrhosis. The creation of a silibinin-phospholipid complex with vitamin E was a new approach in the use of milk thistle preparations.

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### РАЗРАБОТКА ТЕХНОЛОГИИ ТАБЛЕТОК «AL-SOL»

### «AL-SOL» TABLET TECHNOLOGY DEVELOPMENT

### «АЛ-СОЛ» ТАБЛЕТКА ТЕХНОЛОГИЯСИНИ ИШЛАБ ЧИКИШ

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**Калит сўзлари:** сочилувчанлик, сочилма зичлик, қолдиқ намлик, парчаланиш, ишқаланишга бўлган қатиклик, синишга бўлган қатиклик, ўртача оғирлик ва ундан четланиш.

### Аннотация

Мамлакатимизда фармацевтик саноатини ривожлантиришда ,генерик ва оригинал дори воситаларини ишлаб чиқиш ҳамда уларни жорий қилишга алоҳида эътибор қаратилмоқда. Иммуностимуляторлик хусусиятларини намоён қилувчи алоэ ва чучукмия қуруқ экстракти сақловчи механик аралашмалардан, таблетка технологиясини ишлаб чиқишни мақсад қилиб қўйдик.

**Тадқиқот муаммоси:** Тадқиқотлар натижасида янги яратилаётган дори шаклини мақсадга мувофиқ юқори самарадорликга эга бўлган арзон технологиясиги ишлаб чиқиш мақсадида. Олинган субстанцияларни технологик