

## RESEARCH ABOUT DEVELOPMENT OF MEDICINAL DRUGS FROM WHITE WILLOW BARK

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**Introduction.** The use of plants as drugs has come from ancient times and is still playing a significant role in the arsenal of medicines in modern medicine. This is due to some of the benefits of phytotherapy compared with synthetic drugs. Uncommon side effects can be explained by the fact that «Herbal medicine is a valuable biogenetic complex, which includes active substances-proteins, essential oils, trace elements, vitamins and more.»

It is believed that such a complex was formed in a living cell, therefore, it has a greater resemblance to the human body than an isolated, chemically pure active substance, therefore it is easier to assimilate and gives less side effects. Herbal remedies play big sense in the prevention of diseases. The object of our study was the willow white (*Salix alba*). Still Hippocrates, Celsius, Galen recommended to use the broths of willow in fever and to reduce the severity of pain. Biologically active substances in the complex have hemostatic, antiseptic, diuretic action.

**Aim.** The purpose of our work was to analyze literary sources about medicinal plant raw materials of willow white in order to create new drugs on that basis.

**Materials and methods.** Drugs of white willow bark are presented in the form of crushed powder (extract), tablets, capsules, tea. In the form of capsules and pills is an extract that is obtained by vacuum extraction. Nowadays, in the pharmaceutical market of different countries there are preparations with willow white bark.

**Results and discussion.** Willow extract is effective in reducing pain and inflammation. The main active ingredient is salicin (0.5%) – a compound similar in quality to aspirin. White willow bark contains a large number of biologically active substances: glucose responsible for stress relief, metabolic processes, brain nutrition, flavonoids (about 2% catechins, flavones, flavonols, flavanones) produce antioxidant and anti-inflammatory effects, glycosides (3%) decrease the level of cholesterol affects the immune processes, tannins (about 12%) have anesthetic, anti-inflammatory effect, tannin (11% -12%) produces astringent effect, so the bark helps with diseases of the gastrointestinal tract.

**Conclusions.** Consequently, as a result of the research, it can be concluded that bark of white willow is a promising raw material for the development of new drugs for internal and external use.

## COMPOSITION DEVELOPMENT OF THE GEL FOR THE TREATMENT OF PREVENTION AND HEALING SCARS

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**Introduction.** Scar is a secondary morphological element in dermatology, which occurs after injuries, burns, inflammations, operations, in places of skin damage at the level of the dermis (especially the papillary layer of the dermis).

The scar is a coarse-fibrous connective tissue (collagen fibers). Within the scar tissue there are no hair, sweat, sebaceous glands. The initial stage of the fresh scar is a red, shiny and smooth scar, then pigmented, and finally white. Most often, scars occur after the healing of ulcers, deep pustules, cracks, cuts and so on.

**Aim.** The purpose of the research was the selection of the composition of the gel for effective treatment and healing of scars, based on herbal ingredients.

**Materials and methods.** The following components were used for composition development of the gel: Allantoin, Sodium hyaluronate, Vitamin E, D-panthenol and horsetail extract.