

The Archaic Plants in Novel Formulas induce an Immune Response

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ABSTRACT : Homeopathic remedies are very relevant in our era due to the growth of damaging environmental factors, leading to an increase in allergic, cytotoxic, hepatotoxic, nephrotoxic effects on organs and tissues, which makes it undesirable to introduce xenobiotics into the body that can lead to a failure of the coordinated mechanism of regulation of a holistic organism. Homeopathic remedies due to their natural origin are characterized by minimal toxicity compared to chemicals. In this paper, we characterize the main points of characterization and development of herbal preparations. We also set ourselves the task of developing a herbal preparation based on licorice with immunomodulatory properties based on a patent we previously developed; here is described the composition of the new drug.

KEY WORDS: homeopathic preparation, herbal medicine, licorice

I. INTRODUCTION

Most homeopathic remedies work on the principle of similarity [1]. That is, a wedge is knocked out by a wedge: homeopathic medicines exhibit the best efficacy if they are as similar as possible to a sick person due to the fact that the diseases are curable by the same factors as those from which they originate (Hippocrates (460 - 377 BC), but not all of them are safe: only if the letters "HPUS" (Homeopathic Pharmacopoeia of the United States) appear after the name of a homeopathic remedy, it means that it complies with HPUS standards and is approved by expert homeopaths.

The strength of the drug (drug's potency) is indicated by a number using the index "X" or "C". The index "X" means that the drug is diluted in a ratio of 1 to 10, while "C" means the concentration of the drug substance 1 to 100. As a result, the higher the number before X or C, the lower the concentration of the active substance in the drug. A low potency is usually used in chronic conditions, while a high potency above 30C is used in acute situations such as the onset of a cold or stroke. Floral remedies traditionally use a 5X potency [2]. There are the homeopathic compositions with the active pharmacological basis of mineral, animal and herbal remedies in 700 doses of homeopathic dilutions [3].

Homeopathy is often confused with herbal products. Homeopathy differs from herbal in toxicity and therapeutic paradigm [4]. Homeopathic medicines are therapeutically active mineral, plant and biological substances in microdoses used for allergies, coughs, colds, flu, muscle pain, occasional insomnia, anxiety, nervous tension, stress and so on [5]. In homeopathy, it is generally accepted that the smaller the dose of the medicine, the more effective it is. Perhaps, especially if the active substance has toxic properties.

As for the herbal medicines, their main effect is based on the stimulation of body protective functions, restoration of adaptation mechanisms. For this reason, it is preferable to use herbal preparations for treatment, in which there is practically no damage to body tissues. To meet the need for cultivated quantities of vegetable raw materials, patents are being developed on the selection of land, the method of fertilizing and care, for example, this applies to licorice rich in various active elements [6]. The plant remedies act by triggering and regulation of cytokines that stimulate switching of antibody isotypes in B cells, differentiation of T cells and activation of the

immune system. The changes in the release of cytokines entail changes in the background interleukins, tumor necrosis factors and so forth. The ultimate effect is realized by vegetative-nervous, endocrine, metabolic systems.

Licorice (*Glycyrrhizaglabra*) is one of the archaic plants widely used in herbal medicine. Licorice has more than 30 species that are widespread throughout the world and have been used since ancient times to treat colds, general weakness and wilting, but the richest in the main active ingredient, glycyrrhizic acid, licorice grows in Azerbaijan [7]. Today are known the various beneficial effects of licorice root extracts used in the treatment of throat infections, tuberculosis, respiratory diseases, liver diseases; the antibacterial, anti-inflammatory and the anti-immunodeficiency effects of licorice are under study. Licorice extracts are rich in flavonoids isoliquiritigenin, liquiritigenin, licalocone and glabridin with antioxidant, anti-aging properties [3].

We developed a herbal preparation based on licorice; the extract was prepared from freshly collected licorice by maceration with 70% ethyl alcohol, and additional, newly collected medicinal plants added to that extract. The thyme grass, inula roots, cumin and oregano grass added to our previously developed formula sharply increased the immunostimulatory and antibacterial activity of drug. The essence of the proposed invention is that the ingredients of the newly collected plants listed above increase immunity in children, the elderly and patients with diabetes and have an effect in the treatment of diseases of the upper respiratory tract. When examining patients who received the newly developed phytopreparation, no allergic reaction was observed. All medicinal plants that have been included in the invention have an antispasmodic effect. The simultaneous use of plants with the unidirectional effect results in their synergism leading to noticeable spasm reduction. The use of mentioned plants in developed composition in small doses reduces the occurrence of unwanted side effects.

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