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## **MEDICINAL PLANTS AS ALTERNATIVE THERAPY IN CANCER MANAGEMENT**

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**Relevance.** The relevance of the chosen topic is undeniable which is due to the fact that in the 21st century there is a rapid increase in the number of oncological diseases followed by an increasing need to find new ways to treat tumors and restore the body after an illness. Scientists are increasingly turning to the potential of nature for help, using plant resources to discover and obtain the required biologically active substances, whose role has become indispensable in the fight against the global problem of mankind.

**Aim:** the aim of this study is to substantiate the rationality and effectiveness of the use of medicinal plant materials in the treatment of cancer.

**Materials and methods.** In the course of the work, we were analyzing and summarizing scientific literature data in the form of books, pharmacopoeias and other sources of information. We also conducted a survey of respondents from the Belarusian State Medical University on the Internet.

**Results and discussion.** In the course of the research, medicinal plants including Catharanthus pink, Sandy Everlasting, Cotton thistle, Eleutherococcus, Rough cocklebur, Licorice, Narrow-leaved cypress, Plantago major, Celandine, Rumex confertus, Alfalfa field, Chicory, Peppermint, Periwinkle pink, Yew tree, Camptotheca spiky were described, various parts of which contain biologically active substances: glycosides (e.g., eleutherosides,), alkaloids (vinalkaloids of Vinca rosea, taxol from Yew tree, camptothecins from Camptotheca spiky stems), polysaccharides (inulin of Cotton thistle and Chicory), amino acids (e.g., L-kanavanin in Alfalfa field), lipids, tannins, flavonoids, minerals, vitamins, etc., which are effective in the control of a variety of neoplasms including sarcoma, melanoma, leukemia, uterine myoma, stomach cancer. At the 40th American Society of Clinical Oncology (ASCO) Convention June 5-8, 2004 in New Orleans, studies comparing doxetacel, derived from the Yew tree, and standard chemotherapy were presented in which administration of docetaxel led to a significant increase in life expectancy compared with the mitoxantrone group. Thus, the results of studies have demonstrated the advantage of docetaxel over standard treatment regimens in patients with hormone-resistant prostate cancer. Some of the considered medicinal plants help to quickly restore the functions of the body after chemotherapy, have an immunomodulatory, antitoxic and tonic effect. Anticancer drugs obtained from medicinal plant materials were listed, their effectiveness and significance in modern medicine and pharmacy were evaluated. Likewise a survey among people aged 16-25 showed that only 30% of respondents considered herbal medicines effective for the direct treatment of oncology, while 60% of people believed that herbal medicines could only be used for rehabilitation after the illness. The majority of the people interviewed (about 70%) believed that the development of drugs derived from plant sources was a perspective field of medicine and pharmacy, which should be given more attention.

**Conclusions.** It can be summarized that the use of medicinal plant materials in the creation of drugs to fight cancer is more environmentally friendly, but no less knowledge-intensive than the use of synthetic forms, since the isolation, identification, verification of the activity of organic substances and their safety is a long process that requires sufficient theoretical and practical base. Based on the results of the survey, it can be judged that herbal remedies for the treatment of cancer have not yet earned the necessary level of trust from society, but people believe that in the future they will become more widely used.