



MEDICINAL PLANT RAW MATERIALS USED IN PATHOLOGIES OF THE MUSCULOSKELETONAL SYSTEM

Oproschanska T. V., Khvorost O. P., Skrebtsova K.S.

*National University of Pharmacy,
Kharkiv, Ukraine arctium55@ukr.net*

Introduction. Problems with the musculoskeletal system today are among the most serious in our country and in the world. The situation worsens with age because in elderly people with changes in hormonal levels, the calcium content in the bones decreases, dystrophic changes in the joints and atrophy of muscle tissue are observed. Gout occupies a special place. In addition, post-COVID19 complications related to the musculoskeletal system are now widespread. Also, a significant percentage of military personnel injured during hostilities require treatment and long-term rehabilitation. Treatment of diseases of the musculoskeletal system is comprehensive and includes medications that are symptomatic, physiotherapeutic, balanced nutrition and physical exercises and herbal medicine. Herbal remedies are a component not only of drug treatment but are also widely used in physiotherapeutic procedures. The advantage of herbal remedies is the possibility of long-term therapy, multi-vector action, low level of contraindications, etc.

Aim. To conduct an express screening of the range of plant raw materials of various herbal remedies used in pathologies of the musculoskeletal system and to select promising species for the creation of a new original herbal remedy with anti-inflammatory, analgesic and antioxidant effects.

Materials and methods. Content analysis of available sources of information with subsequent interpretation of the results.

Results and their discussion. We analyzed the range of products used for pathologies of the musculoskeletal system and available on the Ukrainian market. These products contain plant raw materials and extracts from them. In total, more than 150 products were analyzed (herbal preparations, herbal teas, liquids, capsules, tablets, powders, creams, ointments, gels, suppositories, patches), among which preparations and herbal teas dominated. Analysis of herbal preparations and herbal teas showed that they contain 50 types of plant raw materials belonging to 25 families. The largest number of representatives of the Asteraceae (8 species), Lamiaceae (6 species), Rosaceae (5 species) and Ericaceae (4 species) families are included in the composition of preparations and herbal teas. The frequency of occurrence is dominated by raw materials of warty birch, white willow, narrow-leaved comfrey, stinging nettle, burdock, chamomile, thyme. But the composition of liquid, solid and soft means for the musculoskeletal system includes extracts of other types of plant raw materials. Thus, the dominant in the composition of solid and soft



forms is boswellia extract (in 33% of the analyzed forms), also often used as components are extracts of turmeric, myrrh and hepargophytum and pine essential oil.

Conclusions. Based on the analysis, we selected more than 10 plant species that are promising for creating a new original herbal remedy for the prevention and treatment of a number of pathologies of the musculoskeletal system.