

Artemisia absinthium L., *Taraxacum officinalis* L. (bitter tonic action); *Frangula alnus* Mill., *Senna angustifolia* Vahl. (laxative action due to anthracene derivatives); *Anethum graveolens* L., *Coriandrum sativum* L., *Foeniculum vulgare* Mill. (carminative action – by coumarins and volatile oils); *Glycyrrhiza glabra* L. (the saponosides with antulcerous effect), etc. Out of the 5446 drugs included in State Nomenclature of Medicines of Moldova, the share of phytodrugs (vegetable products, homeopathic preparations, medicinal species) represent 15,4 % of the total number of medicines.

Conclusions. Pathologies of the gastrointestinal tract represent 8.8% of the causes of deaths in the Republic of Moldova, occupying the third place after circulatory diseases and tumors. In the treatment of gastrointestinal tract pathologies, are used: bitter-tonic, laxative, anti-inflammatory, antidiarrheal, anthelmintic, carminative, antulcerous, antihemorrhoidal and hepatoprotective phytodrugs, that represent 15,4 % corresponding to the State Nomenclature of Medicines of Moldova.

Key words: gastrointestinal tract, medicinal plants, phytodrugs

364. ANTIOXIDANT ACTIVITY OF *HYPERICUM PERFORATUM* L. AND *HYPERICUM ELEGANS* STEPH. SPECIES

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Introduction. Oxidative stress is an important risk factor in developing pathological conditions in human body. Numerous phenolic antioxidants in species of g. *Hypericum* have scavenging radical activities and are considered promising bioactive compounds for free radical pathologies related with chronic diseases (atherosclerosis, neurodegenerative disorders, cerebral and cardiac ischemia, and rheumatic disorders).

The aim of the study. The comparative determination of total phenolic content (TPC) in different species *H. perforatum* L. and *H. elegans* Steph and in various plant raw materials (*Hyperici herba* and *H. flores*) of the sp. *H. perforatum* L.

Materials and methods. TPC for analyzed samples was assessed by Folin-Ciocalteu method. The absorbance was measured at 765 nm with Meterthech UV/VIS SP 8001 spectrophotometer. As solvent it was used 80% ethanol. The antioxidant activity was determined by DPPH and ABTS assay. The results are calculated in terms of gallic acid equivalent.

Results. The total content of polyphenols in dry extracts was determined: *Hyperici flores* – 42,76 mg/ml, *Hyperici herba* – 23,89 mg/ml, *H. elegans* aerial parts – 23,14 mg/ml. The antioxidant potential determined by DPPH method showed: 11,65 µg/ml – *H. flores*; 19,08 µg/ml – *H. herba*; 19,95 µg/ml – *H. elegans*). ABTS method showed: *Hyperici herba* – 22,75, *H. flores* – 28,73 and *H. elegans* – 22,39 mM TEAC.

Conclusions. The most quantity of phenols is contained in *Hyperici flores*, which contributes to higher antioxidant activity. However, the content of phenols in aerial parts of both species of g. *Hypericum* are almost the same. This should be taken in account, because of the possibility of using *Hypericum elegans* as a medicinal plant.

Key words: *Hypericum perforatum*, *H. elegans*, antioxidant, DPPH, ABTS

365. ANTIOXIDANT ACTIVITY AND TOTAL PHENOLIC CONTENT OF SEA BUCKTHORN (*HIPPOPHAE RHAMNOIDES* L.) FRUITS AND LEAVES

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Introduction. Hippophae rhamnoides L., the common sea buckthorn, deciduous shrubs in the family Elaeagnaceae. The plant is being used in different parts of the world for its nutritional and medicinal properties.

Aim of the study. The present study focused on the antioxidant activity determination and total phenolic content of leaves (fresh/dried) and fruits (fresh/dried) of Hippophae rhamnoides L.

Materials and methods. In vitro antioxidant activity of extracts was assayed by DPPH, ABTS, and Iron chelating activity (ferrozine) tests. Total total phenolic content was determined by using the Folin-Ciocalteu assay.

Results. In all assays, the leaves of H. rhamnoides L. showed higher value of antioxidant activity (fresh: DPPH – IC₅₀=28.88 µg/ml; ABTS – 28.79 µM TE/g dried weight; Iron chelating activity – 33.40 %; dried: DPPH – IC₅₀=25.67µg/ml; ABTS – 29.04 µM TE/g dried weight; Iron chelating activity – 53.06 %) than fruit extracts (fresh: DPPH – IC₅₀=357.97 µg/ml; ABTS – 16.44 µM TE/g dried weight; Iron chelating activity – none; dried: DPPH – IC₅₀=689.52 µg/ml; ABTS – 9.03 µM TE/g dried weight; Iron chelating activity – none). The total phenolic contents in the examined leaves and fruits of H. rhamnoides extracts were 2.91 (died) – 4.57 (fresh) and 0.54 (fresh) – 2.30 (dried) mg GAE/g, respectively.

Conclusions. H. rhamnoides leaf extracts have shown considerable antioxidant properties. The consumption of this may play a role in preventing several human diseases, which involve the free radicals, such as cancer, cardiovascular disease, and premature aging. Thus, further investigations on the in vivo antioxidant activity and other antioxidant mechanisms are warranted.

Key words: Hippophae rhamnoides L., antioxidant activity, phenols

DEPARTMENT OF PHARMACOLOGY AND CLINICAL PHARMACY.

366. COMPLICATIONS OF ANABOLIC STEROIDS UTILISATION

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Introduction. The anabolic steroids are most controversial drugs in the world. It works as heroin and amphetamine. Young people turning to use steroids as away to improve or change their body shape and nowadays a lot of people likely to use more steroids to bulk up so the number of people that require the steroids has been increased in the last few years, because these kind of drugs are incredibly effective. Steroids can push the physiologic limits of the muscle making it bigger faster and stronger that it could get naturally but abuse of steroids comes with several undesirable effects and health problems including liver, heart and skin infections as well as physiological disturbances such as depression and dependence.

Aim of the study. To study the most important complications of anabolic utilization.

Materials and methods. I analyzed the bibliographic review and documents about steroid utilization last 5 years ago.

Results. Anabolic steroids are powerful hormone. Steroids increase muscle growth and recovery, strength and leanness. Many serious side effects and health risks are involved with using steroids. Early symptoms are cystic acne, increase in body weight, headache, dizziness, cramping