

*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**

Authors: **Irina Soroca, Natalia Cibotaru**

Scientific adviser: Benea Anna, University assistant, Department of pharmacognosy and pharmaceutical botany

*Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova

**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**

Authors: **Patrisia Litvicov, Sorina Vesiolii**