WHO. The problem becomes even more complicated due to the fact that vegetal drugs are used concomitantly with medicines as patients and even doctors do not always pay the necessary attention to this problem considering medical herbs inoffensive and not being harmful for health.

Purpose and objectives: is to analyze bibliographic data bases which refer to the significance of pharmacokinetic interactions and the consequences of the associated use of vegetal drugs and medicines.

The results and discussion: Analysis of literature showed the existence of hundreds of experimental and clinical studies, of cases referring to interactions of approximately 50-85 of medical herbs and drugs, many of which demonstrate clinical significance. It was proved during this research that the pharmacokinetic interactions take place at different levels of absorption, distribution, metabolism and elimination. A particular interest for medical practice is the concomitant utilization with medicines with drugs from rattle (*Hypericum perforatum*), grapefruit (*Citrus paradisi*), ginseng (*Panax ginseng*), ginkgo biloba (*Ginkgo biloba*), garlic (*Allium sativum*), echinaceea (*Echinacea purpurea*), thistle (*Silybum marianum*) etc.. The most important pharmacokinetic interactions were reported at the level of the cytochrome P-450 activity and of the conveyors (P-glycoprotein etc.). It was established that the grapefruit, echinaceea, green tea, garlic, milk thistle, licorice, chamomile, lemon Chinese are inhibitors of P-450 cytochrome (CYP 1A2, 2C9, 2C19, 2D6, 2E1, 3A4 etc.), while the Hypericum perforatum, Panax ginseng, eleuterococcus, rosemary, green tea, Echinaceea purpureae manifested as inductors. Some of the plants (echinaceea, green tea, ginseng etc.) had an effect on CYP 3A4 in liver and as inhibitor of isoenzyme respectively in the intestine. Recent studies showed an important influence of medical herbs on the activity of transporting systems, especially on P-glycoprotein, located in the intestine, liver, kidney, hematoencephalic barrier, placenta, testicles. The P-glycoprotein acts as an efflux pump, and its induction or inhibition will influence the absorption, transport and the elimination of drugs.

Conclusion: Medicinal herbs when used concomitantly with medicines will show pharmacokinetic interactions with essential changes of the level of medicines in the body and respectively of therapeutic effects. These data require adequate information given by the doctors, pharmacists and patients, with their detailed description in the instructions and medical literature as well.

Keywords: interactions, medicinal herbs, pharmacokinetic

4. INFLUENCE OF ANTIBIOTICS ADMINISTRATED "PER OS" ON INTESTINAL MUCOSA

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Introduction: According to academician A.M.Ugolev, the bacterial flora is a necessary attribute of the existence of complex organisms. It is known that the most numerous and complicated by its composition population of bacteria is in the gastro-intestinal tract, particularly in its lower regions. There were made significant advances in the study of the intestinal microbiota and its functional role in humans and animals in recent decades. There is also shown that changing normal intestinal microbiota composition, (the so-called intestinal dysbiosis) as during the administration of antibiotics, leads to a number of disfunctions with severe consequences for the organism.). Literature contains very comprehensive information about the changes in composition of the bacterial flora under the influence of various antibiotics. Although it has very little information about the impact these drugs have on the final stage of the digestive process, which largely determines the overall body metabolism and homeostasis. The purpose of this work was to investigate during the experiments on rats, the effects that Ampicilline and Metronidazole (antibiotics which are widely used in clinic) have on some indicators of the general organism condition, structure of a small and thick intestine, and activity of two intestinal enzymes: transmembrane M aminopeptidase and predominantly of intracellular glycyl-L-leycindipeptidaze, which are carrying out final stages of hydrolysis of proteins. Also there was collected data about the microbiological resistance to these drugs.

Materials and methods: Experiments were performed on 30 Wistar rats. During the research was used the combination of two antimicrobial agents: ampicillin and metronidazole, 2% glutaraldehyde solution in a phosphate buffer (PBS), 1% - ethanol solution of OsO4, mixture of epone and araldite, toluidine blue. In addition the microtome LKB-III, MBI-6 microscope. Statistical analysis was performed using Student t-test.

Results: We have investigated some structural parameters of the small and large intestine, and activity of two intestinal peptide hydrolyses in rats after ampicillin and metronidazole administration during 3 and 5 days. After 3 days of antibiotic administration, the decrease in the weight of mucosa in the small intestine was accompanied with a reduction in the villous height and width in this part of the intestine, and in the weight of mucosa in the colon. At the same time the number of goblet cells in the small intestinal epithelium was increased. Specific activities of aminopeptidase M and glycyl-L-leucine dipeptidase (mmol/min per g) in the mucosa of the small intestine were increased. The total activities (mmol/min calculated per a part of the intestine) of the same enzymes did not change. The administration of antibiotics during 5 days resulted in an increase of specific activity of aminopeptidase M in the mucosa of the proximal part of the small intestine. In the chyme of the small intestine and colon, activities of the same enzymes (mmol/min calculated per a part of the intestine) were increased on the third and fifth days of the antibiotic administration.

Conclusions: Thus, the application of ampicillin and metronidazole within 3—5 days causes a disturbance of the structural and functional parameters in the small and large intestines which is best seen on the third day of the drug administration.

Keywords: Antibiotics, dysbiosis, microbiota, structural analysis, intestinal digestive enzymes, small intestine, large intestine

5. EVALUATION OF PHYTO PRODUCTS OBTAINED FROM ARTICHOKE CYNARA SCOLYMUS L. ON PHARMACEUTICAL MARKET

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Introduction: Artichoke was used as a food and medicine by the ancient Egyptians, Greeks, and Romans. Nowadays artichoke is widely cultivated in Mediterranean countries. Worldwide ethnomedical uses of artichoke are for bile insufficiency, gallbladder disorders, high cholesterol, liver disorders, hyperglycaemia, detoxification, dyspepsia, jaundice, nausea. Due to clinical proofs of its therapeutic benefits artichoke was introduced in cultivation in the Collection of Medicinal Plants of the Centre for the Cultivation of Medicinal plants of the State Medical and Pharmaceutical University "Nicolae Testemiţanu".

Purpose and objectives: This study aimed to analyze the share of phyto products obtained from artichoke's raw materials in European countries and to estimate the main pharmaceutical forms of drugs.

Materials and methods: assessment literature review of the range of drugs, concept-comparative, structure-systemic review, statistics.

Results: The survey is base on published data of marketing authorization in European countries of medicines containing artichoke. The presence of this medicines are for more than 30 years on the European market and were develop accounting for 11 European countries: Austria, Belgium, Bulgaria, Germany, France, Hungary, Poland, Slovakia Spain, Romania, United Kingdom and also in Republic of Moldova. Sate moldovan nomenclator database of Agency of Medicine includes 3 registered herbal medicinal products containing *Cynarae folium* as a single drug and 1 combined product. Although solid dosage forms (tablet and hard capsules) are considered biopharmaceutical most difficult forms constitutes 80% of registered products. The registered liquid pharmaceutical forms are solution for oral intake, fluid extract and tincture, their range submit considerably compared with solid forms. For example the tincture (1:5) is registered only in one country, in Poland.

Conclusions: As a result of the survey was determined that in different countries are used various