

# COMPOSITION DEVELOPMENT AND ANALYSIS OF GASTRIC HERBAL COLLECTION

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**Introduction.** The diseases of the gastrointestinal tract differ in wide prevalence, recurrent course, temporary disability and has a great medical and social importance. Nearly half of patients with gastroenterological diseases that are looking for a medical help, have such functional types of disorders where it's not always appropriate to prescribe only synthetic medications. At the same time therapeutic options prescribed by physicians are much greater with the complex use of medications of herbal nature (or herbal medications).

Chronic gastritis is a common digestive system's disease to which worldwide about 20-30% of the adult population suffer. Among all the diseases of the stomach, chronic gastritis accounts for 80-85%. Doctors often deal with chronic H. pylori gastritis which is about 90% of all chronic gastritis. This gastritis associated not only with helicobacterial infection but also genetically linked with the peptic ulcer disease. The prevalence of peptic ulcer disease among adults worldwide from 5 to 15%. The reasons that contribute to the occurrence of chronic gastritis include using of rough, badly chopped food (the poor condition of the masticatory apparatus), spicy, hot food that injure the gastric mucosa; irregular meals operate badly too. Food allergies can lead to eosinophilic gastritis. Prolonged alcohol abuse leads to disruption of mucous discharge and processes of circulation and regeneration of gastric mucosa and further to its atrophy. The inflammatory process in the gastric mucosa may develop under the influence of various drugs (nonsteroidal anti-inflammatory drugs, sulfanilamide drugs, iodine, etc.). Duodenal ulcers occur 4 times more common than gastric ulcer. Given that peptic ulcer disease is a serious social problem of modern medicine due to high level of morbidity, considerable prevalence often prolonged course and frequent recurrences of temporary and sometimes longstanding disability, the relevance of studying this subject is undeniable.

The advantage of herbal medications in the therapy of gastrointestinal tract's diseases is a complex effects spectrum of biologically active substances of medicinal plants. Therefore, the search and development of new effective phytomedications for the therapy of the gastrointestinal tract's diseases is the actual purpose of pharmaceutical science.

**Aim.** The aim of our work was to develop composition and to make the analysis of gastric herbal collection.

**Materials and methods.** Using qualitative reactions and chromatographic methods of analysis in gastric preparation we have found a variety of biologically active substances. The quantitative content of biologically active substances in determined herbal collection was defined by titrimetric, gravimetric methods of analysis and steam distillation. Macro- and microscopic methods of analysis have been established morphological and anatomical characteristics of the collection's medicinal plants. Weight and gravimetric methods were defined numeric parameters in gastric preparation.

**Results and discussion.** We have developed a gastric herbal collection with the following components:

Rp.: Glycyrrhiza radices

Chamomillae floris

Lini seminae

Menthae piperitae foliae

Valerianae rhizomatae cum radicibus 20,0

30,0

30,0

10,0

10,0

Misce ut fiat species.

Due to qualitative reaction in gastric collection were identified bound and free sugars, polysaccharides, coumarin, flavonoids, tannins and saponins.

The quantitative content of biologically active substances in gastric preparation was determined. The content of polysaccharides is 11.7%, hydroxycinnamic acids 2.34%, flavonoids 1.61%, the amount of polyphenol compounds 7,56% essential oil 0.44%, ascorbic acid 0.16% and the amount of free organic acids (1.17%). To establish identities of the components for gastric preparation we have studied their morphological and anatomical characteristics. To standardize gastric preparation we have defined numeric parameters, namely the weight loss after drying (12.49%), total as content (3.8%), insoluble ash in 10% hydrochloric acid solution (0.65%) and extractives withdrawn with water (20.32%).

**Conclusions.** We have analyzed the literature, developed composition and conducted pharmacognostical analysis of gastric collection. The quantitative content was determined. The results will be used to develop the relevant sections of the project of quality control methods for gastric preparation.