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IN UKRAINE AND WORLDWIDE**

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## THE MODERN STATE OF THE PHARMACEUTICAL MARKET MEDICINAL DRUGS OF ANIMAL ORIGIN

*Summary.* In modern pharmacotherapy, the role of medicinal raw materials of animal origin, which represents the whole animals, their parts or products of life, are allowed for use in medical practice or for the production of medicinal products. It is represented by medical leeches, panta, snake venom, musk, ambergris, beaver jet, as well as products of the life of honey bee, mummies. This article presents the results of the study of animal products, their classification and use.

*Key words:* medicine, drugs. preparations of animal origin, classification of drugs, oriental medicine, pharmacy

*Relevance.* From ancient times, in traditional oriental medicine people used medicinal raw materials of natural origin for the treatment of various diseases. Thus, in the Chinese book Ben-Cao, composed about 5 thousand years ago, about 65 substances of animal origin are described, and in the scientific works of Avicenna, this list includes about 150 species. Chinese and Tibetan medicine, as a tonic, used a shisha of elephant skin, a tiger's bone to enhance sexual activity, bones of a monkey and a bull - with rheumatism, turtle bones - with anemia.

In our time, the range of products of natural origin has shown that they are slightly different, for example, by the technology of obtaining, on the raw materials from which they are obtained, by nature of biologically active substances and pharmacological action (Table 1).

*Purpose.* The purpose of our work was to better study drugs of animal origin intended for the treatment of people.

### *Types of classification of preparations of animal origin*

Types of classification	Groups of drugs and examples
1. Technological classification	- Preparations of dried tissues (glands) Adiurecrine - Extracts for internal use - Fish and badger fat - Highly purified medication for injections - Timalin

2. By raw material (organ, fabric, bilinen)	<ul style="list-style-type: none"> <li>-Preparations of the thyroid, parathyroid, pancreatic, and others. glands - insulin, calcitonin</li> <li>- Drugs Mukozy - Mukoza Composite</li> <li>- Liver preparations - Vitogepat, Fish oil</li> <li>-Preparations of the mucous membrane of the stomach, pancreas, and testicles - Pepsin, Roinnidaz</li> <li>- Blood preparations - Solcoseril, Actovegin</li> </ul>
3. By nature BAS	<ul style="list-style-type: none"> <li>- Protein preparations - Mezim</li> <li>- Peptide medications - Endolutene</li> <li>- Acid preparations - Luronite</li> <li>- Preparations of mucopolysaccharides - Chondroitin sulfat</li> </ul>
4. By the nature of the actions	<ul style="list-style-type: none"> <li>- Hormonal - Adrenaline, Ostron</li> <li>- Enzymatic - Lidase, Pepsin, Pancreatin</li> <li>- Vitamins - Vitogepath</li> <li>- Non-specific action - Pantocrine, Silenin</li> </ul>

Preparations of animal origin on the object of obtaining, distinguish between: therapeutic animals (live medical leeches), raw material of animal origin (panty) and products of animal origin (mummies, honey, pollen, lanolin, etc.) [1].

Endocrine-enzyme preparations are divided into: pituitary preparations; adrenaline and its derivatives, cholesterol, triprothamine, oralin, protin-sulfate; preparations of thyroid and neoplastic thyroid glands, sex hormones and adrenal cortex hormones; preparations of the pancreas; Organoproductions of enzymatic action; Organoleptics from the muscles, liver, lungs, horns (pawns), bones, cartilage animals; preparations from the blood, spleen and brain of animals and humans; preparations containing poisons, bile preparations and other biogenic preparations.

Also, there is a classification of drugs by animal species, for example, products of reindeer herding (antlers, horns, deer's blood), beekeeping products (wax, poison, propolis, apilac, honey, pollen, perg), snake products (poison), etc. Sources for drugs may also be cattle, calves, pigs, livestock, other species of animals [2].

There is a classification based on the chemical composition of raw materials: wax groups (bees, sperm whales, sheep), poisons (bees and snakes) of fats (fish, pigs, etc.). Animal waxes are either deposition (bee wax) or isolation (lanolin), or products

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that are formed in conjunction with triglycerides and make up a significant proportion of animal fat (spermaceti) [5].

By pharmacological action, preparations of natural origin are very diverse: biostimulants (paints, mummies, apilaks), means for the treatment of neuralgia, rheumatism, etc. (preparations of poisons of snakes and bees), wound healing agents (drugs of propolis and honey), therapeutic prophylactics and diet foods (honey, pollen, perg) [8].

The special raw material for organopreparations is: mammary gland, bile, gallstones, blood, lungs, brain, spinal cord, liver, fetus, kidneys, spleen, mucous membranes of the tongue of cattle, vitreous eye of the eye, trachea, cartilage, bubble glands, heart, prostate gland [7].

Since animal raw materials are unstable when stored and transported, they are as quickly as possible preserved. To prevent decomposition, non-thermosetting raw materials are dried and simultaneously sterilized at elevated temperatures. It should be borne in mind that the healing properties of many organs in these processes can change. For each organ is characterized by its own method of production, but for identical groups of organopreparations, the methods of production are similar, which makes it possible to group some methods of making homogeneous preparations [6].

Production of drugs from dried organs is divided into several stages: purification of raw materials, crushing, drying, degreasing, removal of extractant from the non-fatty material, production of powders, tablets, pills and other preparations.

Medicinal products of animal origin have more advantages in modern medicine, since they, unlike synthetic, mildly affect the human body. The rarity of side effects and allergic reactions can expand the scope of these drugs. Herbal medicines are used to treat many diseases, as well as for the general strengthening of the body [3].

It should be noted that in modern practice most often, not the objects of animal origin themselves are used, but products of processing: animal fats, isolation, products of life of bees and others [4].

Conclusions. We can say that at the moment the products of animal origin are studied differently quite well. For example, snake poison, medical leech, bee products are well studied: their chemical composition, methods of harvesting, application in medicine and a number of drugs have been determined. Thus, herbal medicines are an integral part of modern pharmacotherapy.

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