

## THE HISTORY OF THE ORIGIN OF PHARMACOLOGY, IMPACT ON THE HUMAN ORGANISM AND ITS VALUE TODAY

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### ABSTRACT:

Today, great progress is being made in the development of pharmacology, and the spheres of influence on the human body are also showing good results. What is pharmacology? Is it a disease or a medical science? What is the history of who discovered it? What are the effects on the human body after a patient consumes pharmacological drugs?

**Key words:** Pharmacology, Types, Origin, Antiquity, Effect

**Purpose of the subject:** Development of pharmacology on a global scale.

### RELEVANCE OF THE TOPIC:

Pharmacology is derived from the Greek word "pharmakon – medicine and logic] – medical-biological science; studies the changes that occur in human and animal bodies after administration of drugs. Pharmacology includes several directions: pharmacodynamics - the effect of drugs on the body, pharmacokinetics - the movement of drugs from the time they enter the body to their exit from the body (absorption, distribution, biotransformation and excretion), biochemical pharmacology - studies the mechanism of molecular action of drugs in the body. Studying the effects of drugs in medical practice is the task of clinical pharmacology.

General and private pharmacology are distinguished. General pharmacology includes the mechanism of action of drugs on the body, the general changes caused by this, the processes of administration of drugs to the body, their absorption, distribution, transformation and exit from the body, conditions affecting the properties of drugs, types of effects and treatment of drugs, processes that occur when they are used together. and explores many of their problematic issues, such as standardization, classification, and retrieval.

The task of private pharmacology is to systematize drugs according to their main effect, i.e., anesthetics, diuretics, etc. k. to learn Also, drugs affecting various microorganisms and parasites are recorded in private pharmacology. Proprietary pharmacology is inextricably linked with pharmaceutical chemistry, pharmaceutical technology, pharmacognosy, biochemical pharmacology, chemotherapy, toxicology and

other disciplines. Because of this, the basic theoretical knowledge of medicine is applied to practical medicine through pharmacology.

Later early works of clinical pharmacology are Avicenna's Laws of Medicine, Peter of Spain's Commentary on Isaac, and Saint Amand's Commentary on the Antedotary. The traditional remedies described in these volumes usually consist of complex mixtures of specific herbs and minerals, often with questionable efficacy and occasionally toxic effects. However, over the centuries, an increasingly scientific approach has been used to extract drugs from natural products. The ancient discipline of *Materia Medica*, which focused on understanding the origin, preparation, and therapeutic uses of medicinal compounds, evolved into a more experimental and scientific field of knowledge focused on understanding the biological effects of these chemicals. For example, morphine was isolated from the opium poppy (*Papaver somniferum*) in the early 19th century.

The history of pharmacology dates back to the distant past, because since the creation of man, he lived in the bosom of nature and looked for healing and medicine for his various unpleasant conditions and diseases from the plants and animals around him. Development of pharmacology. Arab, Greek and Asian scientists also made a great contribution. In particular, the information of Hippocrates, Dioscorides, Galen and others about medicinal herbs and their use in the 19th century. has been the main guide in the field of pharmacology.

In the Middle East and Central Asia, the works of Abu Rayhan Beruni, Abu Ali Ibn Sina on medicinal herbs and substances were an important impetus to the development of pharmacology. 612 of the 811 types of simple drugs mentioned in Ibn Sina's "Laws of Medicine" are devoted to medicinal plants and their use methods. This work remains relevant to this day.

Until the 19th century, pharmacology was developed mainly empirically. By this time, experimental pharmacology was formed. F. Majandi, Claude Benar, R. Buchheim, I. P. Pavlov, V. V. Zakusov, M. D. Mashkovsky and other world scientists have made great contributions to this.

**From Antiquity to the Middle Ages**

Pharmacological knowledge has been recorded throughout the world for thousands of years. The earliest known documents of medicinal substances are the prehistoric Sushruta Samhita and the Indian Ayurvedic treatise of the 6th century BC. Additional examples of ancient pharmacological records are various papyri from ancient Egypt dating to the 16th century BC. For example, the Ebers papyrus lists the extensive pharmacopoeia of this civilization: beer, turpentine, myrrh, juniper berries, poppy, lead, salt, and crushed precious stones. It also mentions animal products such as lizard blood, pig's teeth, goose fat, donkey hooves, and various droppings.

Other ancient medical manuals include the forty-volume Shennong Bencao Jing from the Han Dynasty, compiled in the 1st century BC, describing several thousand recipes. Interestingly, *Artemisia annua* L. (wormwood), an oriental herb used in China for thousands of years to treat fever, is the source of the modern drug xinghaosu, which is now a promising modern antimalarial compound. There are also various pioneering Greek pharmacotherapeutic treatises from the 4th century BC. Among them, the five-volume *De Materia Medica* (Latin translation) written by Dioscorides in the 1st century BC is considered the oldest and most influential work in the history of (Western) pharmacology.

### **Levels of effect of drugs on the human body:**

Medicines used to treat or prevent a disease can have a local or general effect on the body. The effect of the drug in the place where it is applied is considered a local effect. This effect occurs at the place where the drug enters the tissue. For example: eye drops, mouth and throat, gargled drugs and drops. The

general effect of drugs begins after the drugs are absorbed into the blood. For example: lobeline, cititon, after being injected into the blood vessels, it stimulates the respiratory center and the breathing rate increases, when the ether affects the respiratory tract, the mucous membranes cool down slowly, and then become insensitive. Then the ether is absorbed into the blood, first it stimulates the central nervous system, and then it calms down, that is, narcosis occurs. Drugs with a general effect can stimulate or slow down the activity of an organ.

**Medicines have a direct and indirect effect.** Their direct effect on an organ is a direct effect. For example: cardiac glycosides improve heart activity and blood circulation, and their indirect effect increases diuresis and urine output. The direct effect is the main effect. In addition to the main effect, there is also an additional effect. For example: the main effect of morphine is pain relief, and its additional effect is to depress the respiratory center.

### **Harmful effects of drugs.**

Nowadays, some drugs have been found to reduce the function of the kidney, liver, and blood-producing organs. There are also drugs that have a local negative effect.

**For example:** Aspirin, butadione, reserpine. Therefore, these drugs should be consumed with milk or starch. Monomycin, gentamipin, canamidine can have a negative effect on hearing. Sulfonamides can cause kidney stones. Therefore, they should be drunk with mineral water.

It has been found that the teratogenic effect of certain drugs causes the fetus to be born with signs of disability. To prevent this effect, drugs are not recommended for a pregnant woman during the first 3 months. In the 2nd half of pregnancy, if necessary, drugs are recommended in small doses and for a short period of time. Teratogenic effect is not transmitted from generation to generation.

**Feedback:** Pharmacists, pharmaceutical technicians, biochemists and biophysicists, and medical scientists are the developers of the field of pharmacology. First, there are pharmacists, who are responsible for dispensing prescription medications to patients and advising them on the safe use of these medications. In addition, they can administer vaccinations, monitor medications given to patients, and provide information on healthy lifestyles and health and wellness screenings. Pharmacists typically work in pharmacies (including food and drug stores), as well as hospitals and clinics. Becoming a pharmacist usually requires a doctor of pharmacy degree, which is a year-long doctoral program. In addition, they must pass two exams to obtain a license.

### **CONCLUSIONS**

Despite the great strides the pharmacology career has made over the past century, we still face major challenges at the beginning of the 21st century. For example, AIDS, malaria and tuberculosis are still endemic in many parts of the developing world, with devastating consequences for local populations. However, these challenges also create opportunities for those who want to pursue a career in pharmacology.

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