

Book Two. The Wonder of Life

Foreword

Sources of Error in Medical Thought

Chapter I. Life

Life: Endless Rebirth

Cosmic Life Water and Life

Tree

Life Variety of Species and a Limited Number of Chemical Substances

substances in a living organism

Cell

Intracellular water

Phagocytosis

Surfaces and spaces

Blood circulation

velocity

Chapter 2. Physiology

A few remarks on the anatomy and pathophysiology of lymph, lymphatic Functional insufficiency of lymphatic vessels

Liver

Lungs

Nervous system

Chapter 3. Pathology

Metabolites are dominant factors in pathology and clinical

presentation Brain diseases (dried neurology and disoriented psychiatry)

Defective children

Chronic malaria - swamp fever (paludism)

Heart failure

Foreword

The Sources of Error in Medical Thought

Modern medicine, trying to achieve rapid demonstrative recovery and not thinking about the physiological future was born in the war and post-war periods of 1914 and 1945. World wars and their threat, the Cold War, various ideologies, mores also radically changed the principles of rational care for sick.

Until August 1914, the clinic, organizing care for the wounded and sick, was guided by the ideas of preventive medicine, i.e. avoided acceleration of the stages of normal evolution of diseases, bearing in mind the natural the protective reactions of the sick organism itself.

Modern medicine is an amazing product of the period of enormous social upheavals, revolutions, counter-revolutions, dictatorships of all possible colors (red, blue, brown, white, green, etc.) - was forced to quickly meet the needs of the armies in the course of the battle. It was necessary to immediately operate, put wounded soldiers on their feet and patients to quickly replenish losses. In connection with this categorical inevitability, medicine in all countries performed its duty well.

When returning to normal life, medical thought should have evaluate useful acquisitions (although there were few of them), find lost paths preventive medicine in order to anticipate severe complications and avoid them in the future.

Since 1914, the number of phlebitis, arteritis, and diseases has doubled heart. It is necessary to protect the walls of the veins, to preserve the normal composition of the blood, it is necessary reduce too many intravenous infusions.

It is necessary to realize that an excess of antibiotics during the ascent temperature kills the body's defenses, makes it allergic, depriving him of resistance for many months. It is necessary to reduce the number of vaccinations. It is irrational to destroy the symbiosis necessary for the body with microbes. Without subterranean bacteria, our soil could not give us grains, vegetables and fruits.

Antibiotic abuse, repeated vaccinations, reducing virulence of various types of microbes, cultivate resistant ultravirulent microbes and disarm the body in front of many infectious diseases.

The human race appeared on Earth, it is subject to the same influences as Our planet. Humans must adapt to climate change according to the seasons, temperature changes in different geographical belts. Aviation, which takes us from Alaska to Brazil, from the north pole to the equator, requires a very fast adaptation to sudden changes in temperature and atmospheric pressure.

Crowds in big cities, where the atmosphere is poisoned by soot, smoke, the release of gases by countless machines, makes our body adapt to life with a large oxygen deficiency. Add to the This is still the widespread progressive contamination with radioactive substances and you will understand that humanity is going through a period of great biological revolution, which may provoke in the future generations not only functional, but also structural changes.

Human crowds, stupefied by sports, radio, television, newspaper intoxication, from sterile education in public schools (dogmatic, immoral, anti-civil), continue their a dance of death on an apocalyptic volcano.

What can I doIt would be better to reduce the severity of the murderous load, increase the resistance of the human body innumerable acute and chronic aggressors. First of all, it is necessary to: for medicine to reconsider the regulatory role of the brain, the directing role, stimulating or inhibiting all physiological, emotional and Intellectual functions are the role of our small and sometimes omnipotent of the brain.

Modern medicine is looking for ways to influence mental activity chemicals, stimulants or sedatives. Their dosage too arbitrary, prolonged use provokes complete inertia and exhaustion - under the influence of sedatives, and with abuse of stimulants - excessive excitability.

Modern medicine considers the skin as an almost inert shell, exclusively belonging to dermatologists, their reserve. But the skin, like the eyes, it is an extension of the brain, a huge surface peripheral brain. By appealing to this peripheral brain, it is possible to stimulate or inhibit the brain's irrigation, its nutrition, its toilet - elimination of brain metabolites, i.e. physiological recovery of the brain.

The brain, well nourished, well irrigated, freed from all, products of exchange, will perform its innumerable functions, the command with with great precision.

The logical mind, the ardent and passionate consciousness of the physician must turn to the tired brain, poorly irrigated, poorly ventilated, poorly ventilated nourished or sick, only then can the physician achieve a real and a long recovery.

Remaining faithful to the provisions of classical physiology, we tried to to highlight the role of capillaries and renal failure in general pathology; oxygen supply, the importance of the diaphragm and extra- and intracellular fluids in the economy of a living organism. In addition, we tried to to correct some too categorical provisions experimental medicine.

Our observations would not have been possible without the remarkable work of A. Krogh and A. Polikar, who laid the foundations of physiological histology, which is a an inexhaustible source for the physiologist and clinician.

The works of Peter and Gamble made it possible to build a solid foundation humoral pathology. We owe a lot to these tireless researchers, as well as the famous physiologist Cannon, who devoted his unique work of wisdom of the body.

For 40 years, we have conscientiously and without any bias studied observations of biochemists, physiologists, clinicians, trying to find any propositions that refute our theory of pathophysiology. We Nothing was found. Our therapy, mainly humoral, was used for 25 years without accidents and with more than satisfactory results in tens of thousands of patients.

Chapter 1

Life

Life: Endless Rebirth

All our earthly Life – the life of plants, animals and humans – depends on tiny cells - a grain of chlorophyll, which is the only a source of vital energy.

Proteins of living organisms, breaking down into amino acids and, possibly, into other substances that have not yet been identified, are characterized by extreme instability set by the program instability, in other words, the ability to change, so minimal that they elude biochemical research, but sufficient for the appearance of fundamental changes in the body.

Inherent Properties of a Living Molecule: Selection, Sorting of Atomic groupings and then uniting them in strict order with the aim of the creation of new protein molecules every second. Thus, assimilation is a characteristic feature of living matter, and, Consequently, life is a continuous rebirth.

Completely incomprehensible, from the point of view of science, remains the incomprehensible potentiality of living systems. Multiple nucleoprotein molecules penetrate into the cell - the egg, and then it begins to divide scrupulously plan, and each cellular differentiation takes place and every useless cell division is delayed precisely provided program, fixing with amazing perspicacity structure and countless variations of future functions.

Descriptive science could record some of the stages of these phenomena of the evolution of a living being, but in terms of explanations, it is in a difficult situation.

Cosmic life

A living organism First of all, it is a system of streams, an interweaving of canals, paths, which are poured in elements of gas, liquids, light and sound waves, tangible waves coming from the outside, which are absorbed by each point of our body.

There are ways of entry: mouth for solids and liquids, larynx and trachea for air, ear for sound waves, eyes for light perception, skin for tangible waves (thermal and mechanical). There are exit routes: lungs for exhaling air, intestines, urethra, skin for the elimination of liquids.

Accumulating signals from all cells, tissues, all organs, every tiny points, countless streams, channels and passages, the brain commands, manages all communication paths. Part of brain activity turns into thought, creation, inspiration, planning...

From these first truths follows a categorical imperative for doctors, who consider themselves as faithful guardians of human health.

First of all, in each case of the disease, it is necessary to restore the flows in the innumerable channels and channels of the body. Miscellaneous secondary. First of all, help the body clear the pathways, which flows the flow of cosmic life. Turn into laundresses, locksmiths and, when necessary, firefighters.

If you delve into the meaning of cosmic life, you realize that every living creature, every plant, twig, blade of grass, every amoeba - each creature should be considered as an absorbing abyss, Receiver, transformer and transmitter of countless beams of radiation cosmic energy. Understanding of the living world, the origin of life, interactions between the Sun and our small planet are subject to revision. What a huge field of activity opens up before the honest seekers! What a great fellowship could be established between biologists, physicists and astronomers!

The barriers between the special disciplines would be erased if in each specialized field, the essential, basic and Details would be discarded. But even now it is necessary to recognize the main principles of the origin of life.

It has long been known that without photosynthesis, there would be life on our planet impossible. But the question arises: photosynthesis requires penetration and fixation of light rays on chlorophyll grains, from where chlorophyll grains appear, are born, materialization cosmic energy, the transformation of light rays into chlorophyll rays molecules?

After the work of Einstein, Planck and others, this transformation is undeniable. The transformation of hydrogen atoms into helium has already been proven by physicists. If only the billions absorbed in the creation of the atomic bomb and the efforts nuclear scientists were at least partially directed to the field of photosynthesis, perhaps we would rather approach the solution of this main problem. But poor physicists for the sake of insane state activists are forced to work for the organization of a grandiose mass destruction instead of looking for the causes of origin life.

Cosmic energy penetrates into our body, into our consciousness, reviving every bit of our cytoplasm (despite the intense bombardment of cosmic rays), preserving its predetermined structures and functions. If you understand, imagine a grandiose picture of cosmic life, We will have to revise/Eliminate all biological concepts, all living connections (philosophical, political, moral and national).

Man is not only chained to the Earth, he is, like all living beings, the son of the Sun, the transformer of solar and vital energy (diastases with microexplosions represent, perhaps, photosynthesis in human body?).

The priests of ancient Egypt are the cradles of our civilization, anticipating science, deified the Sun. This common origin of every life forces to recognize our fraternal kinship with all living beings. Francis Assisi (XII century), the only one in the history of mankind, invested the feeling of brotherhood into the saying: "My brother is a hare, my sister is a swallow...".

Ignorance of our origin, our belonging to the cosmic nationalism, chauvinism, racism, war, itching unlimited power, social oppression. How small and insignificant in with this universal understanding of life ultra-technical achievements of civilization! Aviation, cyclotrons - everything that is a product of human labor, so fragile and almost defenseless! Everything that is embraced by cosmic energy is eternal.

Thought, creation, art, science, all intellectual life become incomprehensible if you forget about their solar and cosmic nature. Belonging to the cosmic life, raising in rank each living being, also increases human value and dignity - trampled, tormented, destroyed on various meridians of our planets. This human dignity must be defended everywhere and against everyone encroachments on him. Legal murders (wars, court sentences) must disappear as a crime against the Higher Mind!

In the darkest period of history, which began at dawn on August 1, 1914, and Concern for the safety of mankind continues to loom as a result of the disorganization of divided nations. Despite the desperate the efforts of the small modern Caesars, representatives of the extreme totalitarianism, disguised, left, right totalitarianism, create gigantic weapons, we are still convinced that no one will ever will not come to the destruction of our little Sun. And our little The sun, looking with contemptuous indifference at the endless excitement ant people, knows well that cosmic energy will not stop a product of cosmic life.

In a world narcotized by the daily press, sports, petty pleasures, no one realizes that they are dancing on a volcano on the eve of a terrifying eruption. It is necessary in the coming years neutralize, detoxify, clean clouds of radioactive particles, floating in our atmosphere, or to accept imminent death on the a historical massacre created by prominent scientists. A generation of physicists like Curie, Becquerel, Rutherford, Bohr, Einstein, Oppenheimer, it was disinterested idealists who were looking for a new one at the risk of their lives energy source.

Unfortunately, twenty years ago, radioactivity aroused interest military and political figures. Stockpiles of atomic bombs and missiles enough to destroy life on Earth 10 times over. Danger to humanity is increasing every minute. In the hands of narrow-minded people Radioactivity becomes a blind instrument of mass destruction.

Allowable Process Radio Dosehas not yet been established physicists, nor biologists. But, given the schizophrenic course of increase nuclear explosions, we must think that in the near future it will be achieved the limit of incompatibility with life. Physiologists and doctors are obliged to stop introduction of radioactive isotopes into the human body. It is necessary in each country to organize periodic measurements of the degree of radioactive activity contamination of the atmosphere, water, food. It is necessary to implement in each country constant cooperation of physicists with biologists and doctors.

In our atmosphere, harmful particles and waste are constantly accumulating a thriving industry that provokes harmful climate change. The world's combustion of coal and oil emits 8 million tons of carbon dioxide every day gas into the atmosphere. This amounts to 240 million tons per month and almost 100 billion tons in year. This mass of carbon dioxide is partially absorbed by the ocean, but A significant part of it remains in the atmosphere and progressively increases its temperature. At present, this

increase in the content of CO₂ is not exceeds 2%, and when it reaches 10%, humanity will be witness to huge climatic perturbations. American physicist Teller, the father of the atomic hydrogen bomb, predicted the melting of the Arctic ice, rising water levels in the ocean and giant floods.

Let your imagination run wild a little and you will come to a pretty dramatic conclusions, and you will be able to properly appreciate the carelessness of the political figures. In recent years, physicists have discovered in the stratosphere a compacted layer saturated with electrically charged particles and magnetic fields. This electromagnetic layer plays a huge role in all phenomena of terrestrial life, it is called Van Allen rings. Scientists believe that nuclear explosions can cause irreparable effects on life on Earth.

Hygienists require water that is suitable for drinking. Thanks to water purification Typhus and dysentery have long disappeared. Sterilization of milk for infants in at the beginning of the 20th century reduced the mortality of newborns from 55 to 5% without vaccination. These are indisputable facts. But no one among hygienists and doctors does not seriously engage in radioactive contamination of the atmosphere; no one is concerned about the progressive contamination of the air we breathe, The apocalyptic danger hanging over us, no one gives to himself of the increase in chronic asphyxia, which makes us apathetic, indifferent and inert. Like Oedipus when he met the Sphinx, At the end of the 20th century, mankind is facing the solution of a tragic problem artificial technological radioactivity. We must decide: to live or to perish under the ruins of Western civilization.

Water and life

In the body human water is distributed both outside the cells (blood plasma water, lymph, intercellular fluid, making up 15-20% of the total human mass), and inside them (50% of the total mass). Both of these large sections are demarcated cell membranes, which provide flows from the cell and into the cell, i.e. water metabolism (Polonovski, 1951; Gamble, 1954). Assuming the selective permeability of membranes, we are forced to consider the fluids of the human body as living elements, continuously withstanding not only physicochemical, but also biological transformations.

The extracellular fluid contains sodium chloride and a certain the number of protein molecules that cannot be neglected, intracellular fluid - very little sodium chloride and relatively a large amount of potassium. Red blood cells are rich in chlorine and potassium. In human body has a large amount of potassium and relatively little sodium. The dog's body contains a lot of sodium and little potassium. Ruminants Animals are a chemically intermediate type between the human type and dogs.

Scientific pharmacology does not take into account this very significant difference in laboratory experiments on animals. Chemical & Biological the environment of the organism of a rabbit and a mouse, which in the laboratory artificially and the disease is roughly vaccinated, completely unlike a liquid medium of the human body, in which the development of the disease proceeds in its own way. Schedules and conclusions of pharmacologists under such circumstances have of very dubious value.

In the arteries, the amount of blood does not exceed 10% of the total blood circulating volume; The same ratio is in the veins. Total - 20%, the rest The amount, i.e. 80% of the blood, fills arterioles, venules and capillaries. Extracellular fluid consists of circulating blood, lymph, intercellular fluid, intestinal juices, cerebrospinal fluid, liquid the environment of the eye and ear, articular and periarticular fluid.

Lymph is a circulating form of intercellular fluid; acceleration of lymphatic flow increases the intensity and dynamism of metabolic processes, slowing down and lymphatic stagnation stifle the life of cells and tissues. The interstitial fluid contains a small percentage of protein molecules, which is significantly increased in kidney disease and especially in cases of lipoid nephritis.

Intracellular water is connected to cytoplasmic colloids. If Extracellular fluid is similar in chemical composition to seawater, intracellular fluid retains its chemical individuality, fixing potassium and giving up sodium and calcium.

Slowing down the circulation of blood mass depends not only on contractions myocardium, but also from a decrease in the flow between the capillaries and extracellular fluid. To remove circulatory decompensation, It is not enough to strengthen the heart muscle, it is necessary first of all with the help of capillary therapy to restore the flow of fluid between the capillaries and intercellular space.

Intercellular fluids provide nutrition to cells and are incessant movement "back and forth". Arterial loops of open capillaries "push" plasma through the endothelial barrier. Venous The loops absorb (absorb) droplets of extracellular fluids.

All the phenomena described by Reilly (1942) (vasodilation, hemorrhages, necrosis) are different stages of capillaropathy, a type of disturbed rhythms of plasma transition from arterial loops capillaries into the intercellular spaces and reabsorption of droplets intercellular fluid by venous capillary loops. These fundamental The processes of the entire pathology are applicable both to intestinal diseases (intestinal hemorrhages, diarrhea, intestinal hemorrhage), and to tuberculosis (hemorrhage, hemoptysis), as well as acute nephritis (hemorrhages, necrosis of the renal glomeruli).

The phenomena of secretion and reabsorption, which 100 years ago were so Ludwig correctly imagined the movements of the tide of our internal ocean, the internal nutrient medium of the aquarium, in which live "fish cells", have not found a well-deserved place in a medical clinic, remaining "dried".

According to Rieser (1949), physiological Equilibrium is possible only with a complete exchange of extracellular fluid, blood and intracellular fluid, which occurs hundreds of times a day. Dougal Daugal, Hahn and Devesy were able to show that the water is mixed with all the water of the body and that this mixture is excreted kidneys for 10 days.

Gortner (1930) put forward the problem of biological significance water. A jellyfish extracted from the water weighs 500 g, after drying it The weight is 0.45 g, i.e. less than 1% of the original weight. Well, is a biologically basic, fundamental part of the jellyfish? Is there a it is an organic part of the dry residue (proteins, fats, carbohydrates), can It is the mineral part (calcium, magnesium, iron, copper, chloride sodium)? Or is it water, which makes up 99.9% of the animal's mass? "For me, - said Gortner, - there is only one answer: everything is the same everything is a living substance, a part of it, which we call cytoplasm" (p. 26).

Focus only on the organic part and the non-organic part solakh - this will be an attempt to erect a huge temple without a plan and without a architect, from a mass of granite that fell from a cliff after an earthquake. The water of the jellyfish, according to Gortner's views, is as alive as squirrels, fats, carbohydrates, and this living water must be different from the mass of water, surrounding a living jellyfish in the ocean.

Greek philosophers believed that surprise was the basis of the generation of science. Without wonder at the wonders of life, science becomes dry and dead. Purely technical research, not animated by interest, confidence that in life processes there are as yet inexplicable mysteries, can achieve nothing but the creation of tools unprecedented accuracy, wonderful devices, but they will never allow problems of life.

Tree Life

In the life of a tree The roots and trunk are the main parts. You can cut off branches, fruits, flowers - the tree will restore them like a lizard will restore its tail. Damage root - the tree will die; Injure the trunk, the tree will get sick. Trunk and root is the life axis of the tree. The trunk is a continuation of the roots that have come out from under the soil and strengthened to complete growth. The strength of the trunk, its Gothic tendency, its gravitation towards the sky (growth upwards) would be are impossible without eternal chaining to the earth.

Physiological unity (trunk, root), innumerable tubules with their selective absorption, with their ability to raise water from the roots to the of the highest treetops, is not only a symbiosis, but also a amazing synergy with the soil and its ingredients. Land with reserves of water, mineral salts, microbes contained in it forms and nourishes the tree. Plants nourish and transform the earth. The flow of life flows from bottom to top and from top to bottom.

The most important process, the basis of all life on Earth, can be expressed with a very simple formula: $C_0_2 + NgO + 674 \text{ cal} = \text{SbNPOB}$ (glucose). Sugar production is carried out at the largest chemical a factory that has branches wherever there are plants. Annual The production of this vegetative factory is equal to 35 billion tons of albumin, fats, sugars and fiber. This factory is tree leaves and every A green particle of any plant.

For 200 years, scientists have been trying to penetrate the secret mechanism of this factories. Biochemistry and agrochemistry strive to decipher this mysterious phenomenon. As usual, biochemistry hastens to establish the nature of the primary matter, quantity and quality of the manufactured product. However, thin The internal processes of converting raw materials into finished products remain unknown, like every intimate mechanism in a living organism.

To make a car, you need angles, steel, rubber, but you need also to arm yourself with creative thought that measures, draws, melts, welds, polishes parts in precisely proportioned proportions. However, coal, steel and rubber alone will never make it

possible to construct a Ford or a truck. An intermediary between steel and Ford is creative thought. In the same way, creative thought turns carbon dioxide into water, solar energy into sugar, proteins and vegetable fats, and it cannot be replaced by any laboratory instruments...

The roots absorb water from the ground and drive it to the same chemical laboratory - sheet. Penetrating into the leaf, carbon dioxide and water instantly disappear and Sugar appears in their place. Carbon dioxide and water are very poor in energy, Carbohydrate is a huge source of it.

Where does the carbohydrate energy originate, where does it come from? 674 cal brought by the sun's rays. Photosynthesis captures solar energy in molecules water and carbon dioxide. Carbon, oxygen, and hydrogen molecules create a trap cage for the accumulation of captive solar energy. Mix water and carbon dioxide in a proportion corresponding to that which is in a leaf, put this water, saturated with CO₂, on the hottest southern Sun - you won't get a gram of sugar.

In 1862, the German botanist Sachs discovered that photosynthesis in the leaf is made possible by the presence of tiny grains in it chlorophyll, the green pigment of the leaf. Chlorophyll particles with a size of 0.003 and 0.01 mm are instruments and apparatus of the laboratory, in which the transformation of solar energy and light rays into solid ones is carried out carbohydrate molecules. Ultramicroscope showed that chlorophyll grains (chloroplasts) consist of an amorphous substance and pigmented granules. They find the enzyme necessary for the use of light. He converts water into oxygen and hydrogen released hydrogen attaches to carbon dioxide, oxygen evaporates into the air.

At every chemical plant, in every industrial enterprise administrators are concerned about the efficiency of technological processes. The efficiency of the best machines does not exceed 24% energy expended. And the factory-list, as Warburg has shown, using 674 cal of light, it supplies 83% of the energy received.

To join and fix a single molecule formed from carbon, oxygen and hydrogen, three quanta of light are needed. For a certain weight of sucrose, light energy brings only 42,000 calories, this amount not enough. You need 112,000 calories. Studying the biochemistry of the green unicellular algae - chlorella, Warburg found that the missing 70,000 cal are provided by the planticular chemical energy reserves. These 70,000 calories After the formation of carbohydrate molecules, they are released and returned to the warehouses of chemical energy reserves, in a cage. Warburg's works are miracles perseverance, endurance in his observations. But what a miracle the synergy of the Sun with a tiny single-celled plant.

But that's not all. Photosynthesis consists of two reactions: the first in exposure time in the sun, the second in the shade. Micromanometer measured the pressure of oxygen released from the algae (chlorella) during its being in the shadows. It has been established that during lighting, the plant releases free oxygen. When the light supply is stopped and The plant is placed in the shade, the released oxygen is again absorbed The plant breathes with calculated economy: it absorbs exactly 2/3 of the oxygen for its respiration, 1/3 is stored in reserve.

Warburg was able to study not only the respiration of the cell, but also The origin of cellular fatigue is cellular anoxemia. Placing algae into the light, it is simultaneously deprived of oxygen - o photosynthesis stopped. Production of oxygen released from water stops, the energy reserves of the cell are tired. To revive fixed cell in order to restore photosynthesis, it is necessary to Supply oxygen to the cell from the outside for 10 minutes. Photosynthesis is impossible without cell respiration.

American researchers have found that during photosynthesis Chlorophyll fixes a hydrogen molecule and a nicotinic acid molecule. In the second phase, nicotinic acid attaches a hydrogen molecule to the carbohydrate molecule, and this tireless acid is again ready to fix and give up hydrogen. The fixation of hydrogen by acid is hydration, The release of hydrogen is dehydration. Hydration and dehydration - it is the continuous rhythm of the pendulum of life, already guessed by Heraclitus.

Warburg's laboratory also showed the role of various light rays in photosynthesis. Photosynthesis requires the presence of blue-green rays, which are not only activators, catalysts for other rays, but also catalysts for cellular life. Physicochemical chain between chlorophyll grains and blue-green rays is explained as follows. Chlorophyll contains yellow Particles - carotenoids that absorb blue-green rays. It should be noted that Human retina purple also contains carotenoid grains. Purple retina tires without oxygen, like chlorophyll, and, like chlorophyll, It is revived after an active influx of oxygen. The eye, like a leaf, must be supplied with oxygen.

The branching of blood vessels, bronchioles, and nerves reproduces geometric structure of the tree. We are witnessing the same

plan an architectural structure for a tree and an animal. Is there a any philosophical materialist system that could to explain this geometrical structural unity if we abandon the ideas of the Architect's Unified Plan?

If the distribution of arteries, veins, bronchi, nerves preserves the pattern branches of the tree, then the picture of capillary and lymphatic vessels resembles a peculiar geometric melody of a root-like net. How to The roots of plants go deep into the fertile, fertile soil, suck from it, are absorbed and, contrary to the law of gravitation, transported vital nutrients, as well as blood and Lymphatic capillaries, penetrating into the villi of the intestine, absorb and transport inert, chemically well-defined substances, and instantly (lightning fast!) with an elusive and invisible speed transformations turn fats, proteins, carbohydrates, mineral salts into breathing, movement, work, voice, singing, thoughts and the triumph of art, religious surprise.

Variety of species and a limited number of chemical substances in a living organism

Number of different forms of cosmic energy are very limited: light and heat energy, electricity, magnetism, gravity, chemical affinity, radioactivity and, finally, vital energy, which is modified in all forms of cosmic energy.

The number of chemical elements that make up a living organism (nitrogen, oxygen, hydrogen, carbon, sulfur, etc.) is equal to 16, 2 times more cosmic forms of energy.

The number of species living on our planet is enormous. Vegetative World is an almost innumerable chain of variations in structure, color, smell, life expectancy, climate adaptation, resistance; there are plants that obediently change their orientation, bending and turning to catch the sun's ray.

In the animal kingdom, the number of variations in each species and the number of species is less than in the plant world. But even here their number is amazing. It's a pity that I didn't There are statistics on all living species collected together botanists, entomologists, ornithologists, ichthyologists and zoologists. The problem arises: how, by what force, millions of combinations are created 16 chemical elements with the assistance of tiny particles of some mineral substances?

Compare these two orders of phenomena: 8 forms of cosmic energy, 16 chemical elements and millions of living species. Mathematical proportion between a very modest number of chemical constituents of a living organism and a huge number of living beings remains absolutely incomprehensible, incomprehensible, inconceivable, if the hypothesis of the existence of a special form of cosmic energy that constantly creates, preserves, preserves, modifies a huge number of species in the living world. These are A stunning discrepancy between the amount of energy forces, the number of chemical elements that make up a living organism, logically and mathematically leads to the idea of the existence of a special form of life energy that organizes countless variations of millions of species.

Astrophysicists admit that there is a huge immeasurable the immaterial emptiness in which the islands of condensation are located, stars. Perhaps this huge emptiness, this desolate, mysterious and A frightening space hides in its depths a tremendous power of creation innumerable types, structures, colors, symphonies of life.

Cell

Nutritional and The cell takes plastic substances from extracellular fluids. Part of these substances it transforms into living matter, the other part into temporarily inert matter, accumulates a reserve. It throws out waste of one's vital activity.

The cell is the cradle and source of various energy manifestations. It breathes, digests, throws out decay products, it It reproduces. From the moment of birth, it is exchanged with extracellular fluids, transformation of metabolic products, microflashes into cellular metabolism, as well as the incessant flow of energy quanta.

The exchange between intra- and extracellular fluids is possible only when permeability of the cell, if the barrier

between the cell and the extracellular liquid, i.e. the cell membrane, is permeable in two directions: access of nutrients and for the removal of decay products.

Each cell is obliged to supply all tissues and extracellular fluids in the a continuous and given rhythm, specific substances (adrenaline, pepsin, tyrosine, ACTH, etc.), necessary for friendly activity for the benefit of the whole organism, surprisingly natural in terms of given program of the relationship between cells, blood, lymph and the contents of extracellular fluids.

This synergy between each cell and the organism as a whole is also possible is conceivable only if each cell agrees to serve their cell sisters, if each cell is seized by desire, innate, unflagging will to serve the cellular collective, the entire organism, up to the sacrifice of one's own life; if each The cell has its own microsoul, its own cellular microwill, its own instinct of solidarity, citizenship.

The life of cells is governed by deep ethics, conscientiousness, service cellular collective. The cell resorts to the aid of any threatened person part of the body, irrigates the damaged areas, darns, sutures wounded places. Even ions charged with electricity line up in order of unity to maintain acid equilibrium.

Could the universe exist if every planet did not accept his astronomical course, his orbit?

Variations in cellular permeability. Young cells have a greater permeability than senescent cells. Cellular permeability decreases in an acidic environment and increases in an alkaline one. Aggregate The mechanisms of cell permeability remain a mystery.

In the kidneys, the osmotic pressure in the glomeruli is 6 atm., in the convoluted tubules - 21 atm., and nevertheless urea at concentration in the blood, equal to 0.25-0.36 g/l, always passes into the urine with a concentration of almost 100 times more - 20 g/l. In the intestines there is a glucose solution, even very much saturated, enters the blood only in a concentration of 1 to 1.2 g/l.

Heraclitus' statement "everything flows" also includes the movement between different parts of the cytoplasm. Each painful case is accompanied by stagnation, slowing, or cessation of the movement of the inland ocean liquids. In each case, the first action of the doctor should be restoration of normal flow.

Dry skin, cold hands and feet, acrocyanosis, paleness, or redness face, palate coloration are as essential and important as diagnostics tetanus, pneumonia, heart attack myocardium, diphtheria.

If you enter a room poisoned by gas, your first The urge will be the desire to open the window wide. Open it blocked capillaries in each patient, increase his respiratory possibilities (without bronchoscopy or tracheotomy). Restore patency of the ducts, supply oxygen - the body will complete it itself the rest.

Perhaps stress, traumatic, toxic or moral shock has Two root causes. The first is the Ineshnyaya, the second is countless outbreaks cells, release, osmotic pressure explosion, osmotic storm, enzymatic hurricane.

If the osmotic pressure in the cell is greater than in the environment, The cell absorbs water by osmosis and becomes swollen. These are hypertensive cell in relation to its environment. If osmotic pressure in the cell below its surroundings, the cell gives off by osmosis water, the cell is hypotonic in relation to the environment. If the pressure in cell and in the environment washing it in the same way, they speak of isotony There is no exchange of fluids. Lack of exchange between cells and the environment, isotonic equilibrium, is cell death.

Life is a state of disequilibrium, always approaching absolute equilibrium, then moving away from the demarcation line between the life and death.

Many plants accumulate certain substances in the amount of exceeding the norm in relation to the environment: unicellular Valonia seaweed (Bermuda) contains 43 times potassium more than seawater. The cell performs a real osmotic work, which would be equal to 10 kg per 1 kg of algae per hour.

Retention of certain substances by the cell, the ability to accumulate reserves of these substances, the ability to protect them from the actions of physicochemical laws, belongs to the field that Claude Bernard called it "the order of life", and Cannon called it the term "wisdom of the organism".

The main contact factor in osmosis is due to the attraction of H and OH." In sour membrane medium fix H ions and acquire positive electric charge. In an alkaline medium, they fix OH ions and are charged negatively. As a result, polarization of membranes occurs, potential difference between two liquids separated by a partition (intra- and extracellular fluids). A flow of electrons occurs, electromotor filtration force supporting osmosis. And in each of them The cell has a hydroelectric microcentral.

In the light of this interpretation of exchanges between cells and intercellular liquids, you begin to understand how barbarously rude diagnostic and therapeutic methods of modern medicine. How far they are from deontological respect for the life of cells, which is the substrate and the driving force of true human life.

Every gesture of medical diagnosis, every therapeutic sanction should avoid everything that complicates and hurts, everything that hinders you, disorganizes the life of cells. Scopies, intravenous infusions, excess toxic drugs, the automatism of preventive vaccinations, the snobbery of the latest pharmacological innovations must be discarded forever.

Activate the great functions of the body: breathing and oxygen supply, Revive the circulation of capillaries, free the body from metabolites waste. Do not hesitate to work as a laundress, as an honest conscientious person a locksmith cleaning the drain. Be simple and modest. Never Forget that the organism as a whole and each cell individually are wiser and smarter than all the academies in the world. Respect life and always remain it a passionate faithful minister.

Intracellular water

Intracellular Water is presented in three forms:

- 1) structural, bound water, which is part of constantly changing isolated molecules;
- 2) the absorbed water of cytoplasmic colloids (see "Spongy structure of organs");
- 3) free fluid circulating in the intervals of living matter.

Bound water has properties that are different from ordinary water. Her fixation in cellular micelles is extremely strong and therefore complete dehydration of live micelles is impossible. It freezes at a temperature 0°C. Dehydrated cytoplasm, which retains only the bound water, withstands very low temperatures.

Water is the lifeblood of cellular physiology. Outside the cell, behind her limits, life is generated by the light waves of the Sun; inside the cell is bound water, in solidarity with the micelles of the cytoplasm, guards and protects life. We can observe, we can admire these connections of various types of water with cytoplasmic micelles; physicochemical laws are silent, and the minds whose neurons retain bound water are forced to to admit a remarkable planning pattern.

Intracellular rotation is rotation. Total contents of the cell nucleus Under normal conditions, it rotates, a full rotation occurs in a few seconds or a few minutes. The mechanism of this rotation and its functional significance are unknown (Pomerat, 1953; Policard, Baude, 1958). In the erythrocyte of a person, which, maturing, loses its nucleus, there is a rotation of hemoglobin molecules. Crushed an incredible number of new observations, outstanding histologists did not have opportunity to dwell on the phenomenon of rotation.

Try to reconsider with us the meaning of the rotation of the cell nucleus and molecules of hemoglobin and you will easily see that these rotations are of great, even exceptional, importance in the mechanical energy of the cell, which is a small turbine, which is apparently capable of transforming a mechanical phenomenon into a phenomenon electric. At the same time, the rotation of the endocellular turbine provides uninterrupted mixing of the cytoplasm.

Spongy state of organs. Sponge is the most elementary species invertebrate animals. Perhaps it is one of the the first sketches of the plan of final evolution. And indeed, just like sponge, every molecule of cytoplasm in the body of a living being, every protein chain, every cell, tissue, organ always and everywhere the ability to absorb water from solutions of

various concentrations. This the ability to absorb,TM spongy, inherited by us, perhaps, from our sponge great-grandmother, plays a very important role in our aquatic economy, in our humoral equilibrium. When a cell is deprived of ability to regulate one's water balance due to the lack of spongy, it becomes ill, hardens and, if this condition lasts for a certain time, dies.

Biologists assume that the degree of viscosity of the cytoplasm is continuous hesitates. When the degree of hydration is increased, the movement of submicroscopic particles freely, this state is called "sol". When hypohydration increases the viscosity of the cytoplasm, the movement of the microparticles are difficult, this condition is called "gel". Alive the cytoplasm continuously passes from the state of gel to the state of sol, and back. Paradoxically, it is this incessant The instability of the physical state is the basis of stability life processes.

Internal circulation due to the mixing of the cytoplasm draws in organic substances with their inclusions into the cell, cause fluctuations cell membranes and provokes the formation of pseudopodia in cells, free of connective tissue, in the lymph nodes and in the bone brain. These hydraulic pulsations of the cell could take place side by side with blood and lymph circulation.

Every disease, every painful aggression always begins with changes in the humoral composition of extra- and intracellular fluids. Quantitatively, liquids make up more than 70% of the human body weight, qualitatively, their composition is a primary factor in all physiological processes; The role of antigens and antibodies is secondary.

When fluids (blood, lymph, extracellular fluid) are preserved acid balance, each aggressive substance is subjected to oxidation and decomposition, phagocytosis by leukocytes and histiocytes, is eliminated by the lymphatic system, fixed and digested reticuloendothelial system.

It is impossible to achieve complete recovery in the treatment of serious diseases considered incurable if humoral therapy.

How many physically and mentally retarded children could be return to normal life, how many cases of arteritis, persistent skin diseases, consequences of cerebral hemorrhage can be cured with with the help of humoral therapy.

Modern medicine has compiled a catalog of painful disorders. Two categories have been established. On the one hand, diseases and their painful signs - hostile army, on the other - army of defense, Pharmacodynamic army. This is a method that contradicts physiology. If They recover allegedly with the help of chemotherapy (blocking the defenses body), this means that staying in bed, dieting and resting soften, weaken painful signs, but they rarely restore real physiological equilibrium.

Phagocytosis

Cells are not are only able to form pseudopodia, when compressed, they secrete enveloping plates for fixing foreign particles, such as dust particles, microbes, the remains of dead, degenerated cells.

The fact that leukocytes and other motile phagocytic cells are attracted by the elements they are supposed to destroy, is the starting point of the Mechnikov doctrine. This attraction was completely confirmed by most biologists; This is chemi-otaxis. Each Chemical stimulation provokes a motor reaction of phagocytes, given by Displacement. These motor actions that follow the stimulus, are called tropism (for the whole organism) or taxis (for isolated cell).

You are offered indisputable facts, but the interpretation of sensitivity of a phagocytic cell is not even a logical hypothesis. If you are not in a state of narcotization with terms such as "taxis" and "tropism", if you seriously think about the stages of phagocytosis, then We can come to the following conclusions.

- 1) Cells are able to receive signaling from a foreign particle; The cell has a mechanism similar to a radar receiver.
- 2) The cell is able to release an enveloping plate and introduce it together with a foreign particle within itself.
- 3) The cell is aware of the degree of danger arising from the the presence of active pathogenic particles.
- 4) The cell has the ability to plan and organize defense.

5) The phagocytic cell is endowed with unconditional citizenship, when, attacking a pathogenic microbe, it sacrifices its own life.

6) The cell thinks, thinks and acts, it has psychism.

The penetration of the victim into the cell is associated with the contraction of the cell body. These plasma flows draw in phagocytized particles and bring them into contact with digestive intracellular formations.

Among phagocytic cells, a decisive role should be assigned to histiocytes; their number is much greater than the number of leukocytes. Histiocytes are the most active connective tissue cells and the main element of the reticuloendothelial system. When quantity and activity leukocytes fall, then the histiocytes attack harmful particles and they are trying to eliminate them. This is the second line of defense, replenishing the thinned ranks of the first line.

Without constant phagocytosis, the renewal of red blood cells would be unthinkable. Erythrocytes have a short lifespan: from 42 to more than 100 days.

For the uniform delivery of oxygen to all tissues and organs, it is necessary that the number of mature red blood cells ejected into the bloodstream is accurate would correspond to the number of aged erythrocytes, fatigued, which must be destroyed in the spleen, in the liver, and in the blood vessels in the equivalent rhythm. If the equilibrium between these two quantities broken, the blood vessels will be overloaded with the corpses of the red ones globules, the decomposition of which would release toxic protein into the bloodstream chains. Final dislocation is provided by hemolysis and phagocytosis; An erythrocyte can be phagocytized by histiocytes, which with their cytop-lasmatic emissions surround the erythrocyte and transfer it to the the depth of the cytoplasm.

Microcinematography has shown how the erythrocyte pris examined by leukocyte; This is a clear demonstration of cellular psychism: the leukocyte must accelerate his movement, must be aware of the presence of an erythrocyte, stick to it, take it into your cytoplasm to digest it and then get rid of the decay products of the dead cell.

Between the lymphatic and blood capillaries is the connective tissue, rich in histiocytes, always ready to enter the lymph and into the blood, when various harmful particles penetrate into the current blood. Histiocytes constantly retain them, clearing the blood and lymphatic capillaries.

In the liver, Kupffer cells are part of the cells reticuloendothelial system, which is located in all areas organisms exposed to pathogenic influences. The Power of Self-Defense body is inexhaustible!

Surfaces and of space

Electronic The microscope showed that in the vast majority of cells there is a very a narrow space between the membranes of contacting cells. According to these intercellular spaces, extracellular fluids irrigate, nourish cell cytoplasm and carry away cellular metabolites. Metabolism between cell contents and the extracellular sea is facilitated by active wave-like or pulsating movements of cell membranes.

The surface of the cell is not immobile. Swellings and dents form on it. The folding of the earth, which forms mountain ranges and subsidence of the soil, is known. The same changes are observed on the surface of the cell. During the changes in the volume of organs, there is a compression of the colloids of the cell, which is a source of energy that should not be neglected in the overall the economy of the organism.

Imagine the pathophysiological effects that occur when changing temperature or pressure rhythms of the surfaces of our body. The release of surfaces and super-compressed spaces could to provoke a local outbreak, which for this infringed of the site is a disaster. Easy to understand the transformation of the innocent abdominal flatulence into a terrible intestinal blockage. Every paroxysm, even a weak cough, each increase in sneezing represents for a human of the body is the same phenomenon as a volcanic eruption in some area of our planet.

Electron microscopy suggests the presence of a special adaptation in the cytoplasm, capable of instantly giving rise to cellular micro-explosion. A stream of air thrown out by coughing through the respiratory tract, can reach a speed of 110 m/s in the glottis, i.e. 6.6 km/min or 390 km/h. The speed of a cyclone, storm wind is hardly reaches one-third of the

explosive speed of cough (130-140 km/h).

An instantaneous acceleration of air movement provoked by coughing can be considered as an explosion (flash) generated by decompression ultra-condensed, ultra-compressed surfaces with sharp release captive pressure. Histology has long known that molecules enormous velocities are characteristic, equal to the speed of a bullet from a gun. But without the presence of the nature of explosions in our body: a thought-flash, an explosion of consciousness would be unthinkable. One day, the dynamic flame turns into a ashes. Death comes.

The price paid for permission to taste life, even a very limited one duration, is not so long.

And now some illustrations in numbers and geometric problems.

During the neoplasm of bone tissue in the fetus, during the recovery of bone after a fracture, an electron microscope shows that changes in the orientation of the polysaccharides that make up the connective tissue, occurs in a strictly specified order.

Molecules, creating cells and threads of connective tissue and changing their geometric order, make room for mineral crystals calcium phosphate and calcium carbonate. The microcrystals that fill these spaces politely provided by polysaccharide molecules, stretched into needles from 30 to 400 μm (one millionth of a millimeter) in thickness and approximately 2000 μm in length. These microcrystals have a surface of 130 m per 1 g of unfolded surface.

Bone tissue is a mineral reserve that the body turns to every time it is necessary to compensate for the loss of calcium. Gentlemen rheumatologists with their X-rays do not condescend to the fact that to deal with calcium metabolism and the surface of mineral substances that maintain intimate contact with intercellular fluids.

The surface of the small intestine is dotted with cytoplasmic villi like pseudopodia, pressed one against the other. Their totality forms a huge brush-like border. The length of the villi is from 2 to 5 μm , the diameter is 1 μm . Assuming that the surface of the small intestine is 43 m, its The total suction surface should be 602 m.

Considering the role played by the bristles of the brush border of the surface small intestine, given their fragility, it is easy to understand how much Amputations of two-thirds of the stomach are inadmissible and harmful, exposing thin fragile villi of the intestine to the traumatizing shock of food, insufficiently digested by a stomach devoid of its integrity.

In the renal nephron, classical histology established the existence of four poop segments. Electron microscopy found in one only the proximal segment has a huge number of villi, in contact with the extracellular environment. Brush-shaped border (border) consists of cytoplasmic fibers of the same length, arranged in parallel, like the bristles of a brush. In humans, the proximal segment of the nephron has a length of about 14 mm. proximal segment, approximately equal to 20 mm.

If there are 2 million nephrons in two kidneys of an adult, then the total The exchange surface on the villi is from 40 to 50 million mm, i.e. from 40 to 50 m .

Under the influence of certain abnormal conditions, tubular villi can undergo various changes. In the case of pathology, the villi seem to soldered to one another. They can become hard.

Imagine a small field of 50 m, dotted with thorns collected by then and tightly compressed on a surface of 14 mm. This picture is difficult is perceived by our poor mind, nevertheless it is one of the millions and billions of wonderful reality that governs our life.

When a mass of matter is supercondensed in space, it is legal to assume that the pressure of a compressed substance is experiencing a monstrous load.

In the liver, the brush border (border) is replaced by pseudopodia that occur on capillary endothelial cells. These pseudopodia are like a cytoplasmic sponge. Capillary endothelial cells The livers are not connected to each other, they are separated by very thin intercellular spaces that allow blood plasma to pass from the capillaries into the intercellular spaces. The exchange surface between liver cells, on the one hand, and endothelial cells blood and lymphatic capillaries

of the liver, on the other hand, due to the arrangement of countless pseudopodia, it is extraordinarily enlarged.

The volume of blood passing through the liver in one hour is 100 liters. (If you put a heating pad on the liver area for an hour, you warm up 100L blood).

The surface of endothelial cells of all blood capillaries in of an adult is 7300 m, the total amount of blood and lymph is 7.3

ciliated cilia, ciliated edges - all these elements, Keeping the Constant Vibration in Both Kingdoms - The Bellynom and vegetable, created and organized according to a single and identical plan inframicroscopic structure. Wave-like vibrations regulate flows of intracellular and extracellular fluids, provoking movement and movement of particles. The same phenomenon is found in wave-like membrane movements. The latter, with their vibrations, resemble light rays.

From these observations, carried out with exceptional accuracy, it is revealed the identity of the geometric shape between light waves and vibrational waves of the ciliated devices of a living organism. Photosynthesis in the leaf is the primary cause of endless oscillations in the plant and animal kingdoms.

Numerous examinations using an electron microscope confirm the planned predetermination in all regions of the Universe: kingdom of animals, vegetables, minerals, in the sky and in the tiny cell representing the microcosm with microgeological structures, microastronomical, animated by the undeniable psychism of the cell.

The tracheobronchial mucous membranes of the bronchi, trachea and nose are equipped with numerous cilia with an amazing ability to coordinate them movements. This coordination does not depend on the nervous system, but is located exclusively in the cytoplasm of the cell that carries the cilia. Call irritation of the nasal mucosa, you will provoke sneezing. If the nasal cells respond with several explosive vibrations without the intervention of nervous elements, then it is difficult to abandon our hypothesis of microexplosions.

Increase in air pollution with smoke, soot, poisonous emissions gases from countless machines makes the air unbreathable, generates paralysis of atrial fibrillation movements in the nasal mucous membranes, larynx, trachea, bronchi and bronchioles.

Circulation Speed blood

Surface unfolded blood (plasma + blood cells) is 6000 m². Surface lymph is 2000 m². These 8000 m² are injected into the blood and lymphatic vessels - arteries, veins and capillaries, the length of the last 100,000 km. Surface of 8000 m², thickness of 1-2 μm, length of more than 100,000 km is irrigated by blood and lymph in 23-27 seconds. Perhaps explains the mysterious rapidity of chemical reactions in the human body with its very moderate temperature. Apparently, The role of capillary flow velocity is as significant as the role of diastases, enzymes and biocatalysts.

Carrel (1927), comparing the volume of fluids required for life of tissue in culture, calculated the need for human fluid body in 24 hours and found that it was equal to the figure of 200 liters. complete bewilderment when I was forced to state that with 5-6 liters of blood and 2 liters of lymph, the body is endowed with ideal irrigation.

His calculation was erroneous. Survival of tissue grown in culture, is by no means a mirror, an accurate reflection of the real life of the fabric in the living organism. It is a caricature of cellular and tissue life in normal conditions.

Tissues grown in culture have a microscopic, Lilliputian metabolism compared to that of normal tissues. Missing stimulators and control of the brain center. Impossible by mixing salt and biologically inert, replace living blood and lymph, which cleanse, which dose nutrients and waste every second of each molecule, the proportion between acids and bases, between oxygen and carbon dioxide.

Almost all the conclusions drawn from the study of tissues grown in culture, should be radically revised. If the cycle is vascular circulation occurs in 23 seconds, if in 23 seconds 7-8 liters of blood and lymph run around its orbits, it will be approximately 20 l/min, 1200 l/h, 28,000 l/day If our calculations of the velocity of the blood flow are correct if in 24 hours almost 30,000 liters of blood and lymph wash our body, we can assume that we are present at the bombardment parenchymal cells with blood particles, according to the same law, which determines the bombardment of our planet by

cosmic particles, the law that governs the motion of the planets and the universe, the motion of electrons in their orbit, as well as the rotation of the Earth.

The speed of blood flow is very different when passing through territories, located in the brain, in some areas it passes on time, without This means that the speed of blood circulation in the brain corresponds to the rapidity of a lightning-fast flash of thought.

They often talk about the reserve forces of the human body, but at the same time they do not are aware of the true nature of these forces. Every atom, every nucleus atom, while maintaining its enormous explosive power, remains inert, harmless, unless there is a dizzying acceleration, producing a destructive explosion. Reserve forces of the body are the same explosive potency, as dormant as the the sleepy power of an inert atom.

Rational balneotherapeutic treatments, increasing and accelerating circulation, intensifying the amount and completeness of oxidative substances processes, cause an increase and spread of constructive micro-explosions.

"Everything that exists above also exists below," Heraclitus declared more than 2000 years ago. Concurrency between directional microexplosions planned in the life of animals, plants and people, with On the one hand, and between the gigantic explosions in the myriads of suns, the other, obvious.

Chapter 2

Physiology

A Few Remarks on the Anatomy and Pathophysiology of Lymph, Lymphatic, Vessels, and Nodes

Lymph washes all cells, fills all the cracks and gaps in the organs. Flow free lymph, outside the walls and barriers, without visible orientation is, However, the source of strictly defined lymphatic flows in plexus of lymphatic vessels with a certain orientation.

Complementing the circulatory circulation, the lymphatic circulation plays a an indispensable role in tissue nutrition and the elimination of harmful metabolites. If the length of blood capillaries is 100,000 km in the body the length of the lymphatic capillaries must be at least doubled. This is the second river of life. Hippocrates already spoke about white blood.

Bartels (1909) distinguishes three divisions of the lymphatic system.

- 1) Lymphatic vessels of different calibers: lymphatic capillaries, on the one hand, and the lymphatic fissures on the other;
- 2) lymphatic organs: lymphoid islets, tonsils, spleen, thymus (or thymus) gland - thymus, bone marrow;
- 3) the cavities of the pericardium, peritoneum, pleura, which are in a permanent contact with lymph, as well as the cavities of the nervous system: subdural cavity, ventricles of the brain, central canal of the bone marrow, lacrimal chambers of the eyes, ear labyrinths, cerebrospinal fluid.

Lymphatic vessels tend to dilate more than blood vessels; This elasticity allows them to better provide drainage of metabolites. In humans, large lymphatic vessels have smooth, well-developed muscles. Number of lymphatic vessels, coming out of any organ, more than the corresponding number of veins. There are 60 valves in the lymphatic collector of the human hand, in which leg manifold - 80-100 valves.

Every obstacle in the way of lymphatic or blood flow provokes a local disorder or general disease. When dilation of the lymphatic vessels, the valves do not close, we are present at birth of lymphatic varicose veins.

All tissues and organs irrigated by blood vessels are also equipped with lymphatic vessels; The only organ - the placenta - is Exception. Due to the absence of lymphatic vessels in the placenta Elimination of metabolites from the

fetus creates a significant overload of the mother's venous system. This is one of the reasons for the development of phlebitis in women during pregnancy. Cartilage, lens, cornea are devoid of blood and lymphatic vessels.

Normally, the flow of lymph moves in one direction. When lymphatic The glands are affected by tuberculosis, cancer, lymphogranulomatosis, whooping cough and leukemia, obstacles that arise along the lymph force it move in the opposite direction (retrograde circulation). It is known retrograde reproduction of cancer cells. All lymphatic vessels pour their contents at the base of the neck into the subclavian veins.

The lymph glands are located in the path of the lymphatic trunks. Their The size may exceed the size of a cherry pit, nut, but it can also be with a pinhead. The glands of the head and neck are divided into 9 main groups: occipital, mastoid, parotid, submandibular, facial, chin, sublingual, posteropharyngeal, cervical. The First Five Groups form a real collar around the neck.

The chemical composition of lymph is very variable depending on its mpresence in the body. It is very poor in colloids, the percentage of proteins do not exceed 0.3-0.6, the percentage of lipidrv is very variable.

The concentration of urea corresponds to its concentration in the blood serum. The percentage of glucose in lymph exceeds that in serum. Osmotic Lymph pressure is higher than blood serum. If we assume that in lymph contains metabolites that have passed into it from the blood, then each stagnation, every delay in the large lymphatic flow caused by increase in the corresponding nodes, ends with the accumulation of harmful metabolites in the blood and malnutrition of parenchymal cells.

Different concentrations of lymph flowing from different organs show that the endothelial cells of the lymphatic capillaries are not passive membranes are subject to physicochemical laws, but are endowed with a miraculous the ability to actively control the selection of substances that are necessary remove from the blood. They not only "at their own discretion" carry out the passage of various substances into the lymphatic capillaries, but more moreover, they perfectly adapt to the needs of some organs, increasing the or by reducing the elimination of circulating substances in the blood, as well as from extracellular fluids that wash parenchymal cells and organs.

Lymph, in addition to other important functions, is a permanent reserve plasma, always ready to delay the enemy's advance, restore the quantitative and qualitative plasma deficiency.

Each decrease in tissue volume, especially glandular cells and muscle cells fibers with their dynamic metabolism, increases osmotic pressure in the blood capillaries with the subsequent release of blood plasma and an increase in lymphatic volume. Muscle work, accelerated oxygen inflow, Anything that increases cellular metabolism is a major factor lymphogenesis. After muscle fatigue, lymph contains red blood cells, which indicates an increase in capillary permeability. Insulin slows down the course lymph.

Diuretics increase the amount of lymph, it becomes richer mineral and organic substances; Lymphatic action diuretics precedes their diuretic action. This observation is of great interest for the physiology of diuresis. It indicates The main role of extracellular fluids and changes in the composition of lymph in restoration of impaired diuresis. This observation also emphasizes Unreliability of experiments on isolated organs.

For normal kidney function, it is necessary to enrich the lymph with organic and mineral substances, it is also necessary to change the chemical the composition of extracellular fluids and the permeability of the walls of blood capillaries, etc., etc. interaction provokes painful disorders. How harmful the illusion is organization of research on isolated organs! How many sterile conclusions of experimental medicine are poisoned by the remnants of the thoughts of the honest seekers vegetating in the world of phantasmagoria!

Lymph nodes. The number of lymph nodes in a dog is 600, in a pig - 190, in a cow - 300, in a human - 400, in a horse - 3000. U animals raised from birth in absolutely sterile conditions, Lymph glands do not develop.

Increased metabolism, normal agglomeration of metabolites and harmful substances cause the need to increase thelymphatic nodes that fix, decompose large molecules, organize continuous cleansing of blood, lymph and extracellular fluids. Torrent lymph is slowed down in the lymph nodes that are included in the route middle lymphatic

vessels. In this way, the exchange is carried out metabolites between lymph and lymphoid tissue. Lymphatic sinuses expand at the base of each node of the lymphatic flow and are The guarantee of the reliability of the exchange is tiny lakes that look like blood lakes lakes in the liver, spleen, and venous sinuses of the meninges.

Lymph nodes-barriers regulate lymphatic flows. They retain and absorb lymph when its volume becomes excessive. Normal flow of lymph from the thoracic duct to the venous duct system occurs if the lymphatic pressure is higher than the venous pressure. Sometimes edema is a consequence of an increase in venous pressure at the base of the neck, provoked by changes in the cardiac valves. McMaster's (1947) research has shown that when diseases of the kidneys, lymphatic circulation is increased, in heart patients it is slow, sometimes even to the point of stopping.

Lymphatic system of the lungs. In the intercostal pleura, the surface lymphatic vessels are one and a half times more than the surface blood vessels. The lymphatic system of the lungs provides drainage end products of metabolism from bronchioles and alveoli. Lymphatic outflow activity is provided by chest breathing movements and excursions diaphragm. An increase in body temperature increases the speed of lymphatic drainage.

Lymph formed in the lungs spreads in three directions: one part of it evaporates and helps to humidify the exhaled air; the other part reaches the bronchioles and moisturizes their surface, creating the liquid medium in which the ciliated cilia vibrate, in addition, it is part of bronchial secretions; The third part turns into lymphatic vessels of the lungs and then connects with venous blood (Polikar).

Lymphatic vessels of the heart. There is a subendocardic plexus, located in the interventricular septum; sub-pericardic The plexus completely covers the surface of the ventricles of the heart. Left side pericardial plexus extends to the entire left ventricle, and also on the part of the right ventricle adjacent to the anterior groove and left coronary artery.

Three lymphatic branches drain the lymph of this territory to the main left lymphatic collector. Vessels of the right side The pericardial plexus covers the entire right ventricle and allows the lymph into the initial part of the right lymphatic collector. These Pericardial vessels are located all the way along the coronary arteries.

The lymphatic vessels of the atria are few.

Comparing the rich lymphatic irrigation of the ventricles with the poor atrial irrigation, an interesting conclusion can be drawn. The myocardium with its muscle richness, with its dynamic contractions, with active metabolic rhythm with each systole, it ejects a mass of metabolites, which cannot be eliminated by the venous system alone. To guarantee the normal activity of the myocardium, additional drainage system of metabolites, the accumulation of which in the coronary network can damage the normal nutrition of myocardial fibrils. EthAbout do lymphatic vessels, carrying out drainage, purification of blood plasma, feeding, irrigating myocardial fibrils.

It is surprising that cardiology has not even raised the question of lymphatic circulation.

Lymphatic vessels of the diaphragm. In the diaphragm there are two lymphatic canal: subperitoneal - on the entire surface of the diaphragmatic peritoneum, consisting of several rows layered on top of each other; the main canal, supradiaphragmatic, consisting of the superficial pleural and deep subpleural canals. Surface Channel It is located in the thickest of the diaphragmatic pleura, the subpleural canal consists of connected small channels surrounding muscle fibrils diaphragm.

The subpleural and subperitoneal canals are tightly connected to each other numerous vessels. Direct lymphatic connection between subperitoneal and pleural canals explains cases of penetration infections from the peritoneum to the pleura, and vice versa.

The lymphatic vessels of the diaphragm are also connected with the lymphatic vessels liver. Part of the lymph of the liver flows into the same collectors into which lymph of the peritoneum and pleura drains. Lymphatic vessels of the diaphragm are also in contact with the sebaceous bursa of the kidneys and with the adrenal glands. What a magnificent synergy between all the organs of the abdominal and thoracic cells! And how poor and sterile are the conclusions of disease specialists liver, kidneys, adrenal glands, if they are not aware of the role of the diaphragm, neither about capillaries, nor about lymphatic tracts!

Lymphatic vessels from the posterior part of the subpleural canal of the diaphragm they cross it and end in the intra-

abdominal ganglia. Crossing nodes located on the convexity of the diaphragm, they are directed to the group glands located behind the pericardium, around the esophagus and aorta. These The nodes are located near the abdominal esophagus and partially above the abdominal aorta. Blockage of these glands can provoke hiccups and an increase in blood pressure in the subphrenic portion of the abdominal aorta due to retention of uneliminated metabolites in its abdominal wall.

We often observe, especially in women after pregnancy, a significant narrowing of the abdominal aorta, sometimes this part of the aorta is highly calcified, almost cartilaginous. These observations highlight the danger of blockage periaortic lymph glands, the normal function of which provides full elimination of metabolites.

"Coexistence" of ascites and bilateral pleural pathology with the addition of renal failure, cardiac decompensation in cirrhosis of the liver is easily explained by the contact of lymphatic collectors located above and below the diaphragm.

But how can you explain the absence of purulent accumulations in the peritoneum with purulent pleurisy? The pathways of the lymphatic vessels remain the same in both cases. In purulent pleurisy, the lymphatic vessels of the chest can be compressed, the outflow into the abdominal cavity of thoracic lymph containing leukocytes and microbial bodies, is more than likely, and yet never There is an accumulation of pus in the peritoneum with purulent pleurisy.

And here is the explanation: in the abdominal cavity, the number of lymph nodes is many times more than the number of lymph nodes in the chest. It's them, abdominal glands, fix, retain, disintegrate, turning into harmless molecules, microorganisms, particles pus, remnants of protein toxins.

Lymphatic pathways of the nervous system. Mascagni stated the presence of lymphatic vessels in the meninges. Hard The meninges are also covered by a system of lymphatic holes and network of lymphatic capillaries. Reuviere (1929) was the first to see and he described the lymphatic vessels encompassing the sympathetic nodes (ganglia). He found rich lymphatic circulation in the cervical ganglia.

Lymph, which washes the nerve elements of the brain, flows in the perivascular or adventitial membranes. The latter surround all the circulatory vessels - arteries and veins; They are more developed around the arteries than around Ven. Lymph is located between the muscular lining of the arteries and the adventitia. Here are the so-called trabeculae, which replace the lymphatic ones valves. Each pulsating contraction of the arteries advances lymphatic flow, while trabeculae prevent the return flow of lymph.

In addition, in the central nervous system there are real lymphatic vessels. Lymph of the nerve centers in the subarachnoid-distant is connected to the cerebrospinal fluid.

Cerebrospinal fluid. It partially occurs in the nerve centers: Blood plasma in the capillaries surrounding the cells of the brain centers can seep under the adventitial membranes. In addition, spinal cord Fluid is formed in the vascular plexuses of the ventricles of the brain.

Cerebrospinal fluid (CSF) fills the subarachnoid space, the ventricles of the brain, drains into the spinal cord. Liquid, irrigating the brain and spinal cord, moistens the nerve trunks on their way dissemination; it changes not only locally, but is important factor in the occurrence of pathological phenomena in the central nervous system system.

Every change in the way the liver, spleen, kidneys, every variation composition of extra- and intracellular fluids, each reduction in volume oxygen released by the lungs to the brain, affects the composition, viscosity, the rate of flow of cerebrospinal fluid and cerebrospinal fluid. All this could to explain some of the painful manifestations that occur in the brain and spinal cord.

The volume of cerebrospinal fluid ranges from 120 to 155 ml, the limit The numbers are 60 and 300 ml for the elderly. The pressure is 125 mm Hg. in lying position and 410 mm in a sitting position. If in a lying position The pressure of the cerebrospinal fluid and cerebrospinal fluid is reduced to a minimum, it is possible to assume that this significant decrease may be a factor facilitating falling asleep - falling asleep.

From the subarachnoid spaces of the brain, the cerebrospinal fluid passes into the perivascular membranes, from there it flows into the lymphatic system and Together with lymph, it enters a vein. Thus, next to the bloodstream and lymph flow is closed and free (remember the blood lakes in the liver, spleen and venous sinus) circulation of the cerebrospinal

fluid and cerebrospinal fluid.

It is clear that due to the continuous mixing of blood and lymph cerebrospinal fluid with the help of some mechanisms and unknowns physicochemical reactions, one might say, mysterious, strictly guards its structure. All the innumerable functions of the brain depend on the integrity and completeness of the three streams and on the composition of the blood, lymph and spinal cord fluid (cerebrospinal fluid).

Lymphatic system of the kidney. In the sebaceous capsule of the kidney, which covers the adrenal gland is also located inside adipose tissue, which is very important lymphatic network, which is in contact with another lymphatic network with the help of anastomoses kidney. There are also anastomoses between the renal plexus and the lymphatic network of the peritoneum, liver, diaphragm, appendix, colon intestines, and sometimes ovaries or testicles.

Thanks to these connections, the constant "vigilance and solidarity" of all of these plexuses, kidney disease very rarely provokes painful changes in the internal organs, although all the plexuses of these organs are full of microbes and toxins. The role of the lymphatic system as a of a huge factor of protection is absolutely not studied, and is neglected by immunologists.

Sisganoff in 1940, measuring the amount of lymph flowing from the of each kidney, found that within a minute, one kidney excretes 0.5 ml of lymph, i.e. 1.5 liters per day from both kidneys - an amount equal to the daily volume of urine.

Schuman and his collaborators found in renal lymph from 0.44 to 4.2 g of albumin. It could be assumed that isolated albuminuria, without cylinders, erythrocytes, kidney cells, appears in as a result of overloading or blockage of the renal lymphatic tract, overly filled with metabolites.

Kaiserling and Sootmayer (1939), squeezing with a ligature lymphatic vessels of the kidney, found that at the same time the volume of the kidney increases by 2 times. Lymphatic stasis occurs in the renal tissue. Keyserling, ascertaining a few days after lymphedema histological changes in the renal tubules, proposed the term "Lymphogenic nephrosis".

Having ligated the lymphatic pathways of the kidney with a ligature, Romualdi and Monnaci (Romualdi, Monnaci) in 1947 provoked albuminuria and cylindruria (lymphogenic nephrosis). In cases of ureteral blockage by stone or abundant sand, urine is absorbed by lymphatic vessels. Blockage lymphatic vessels plays a dominant role in the development of hydronephrosis.

Anderson and McDonald (1946) stated the presence of microscopic stones in healthy kidneys. Mineral particles are always eliminated by the lymphatic vessels of the kidneys, like particles of coal, The dust is drained by the lymphatic vessels of the lungs. When in the lymphatic osmotic pressure increases due to lymph load metabolites, mineral particles fill the intermediate tissues of the kidney and penetrate into the tubules.

We have long paid attention to latent kidney stone syndrome. If palpation of the abdomen reveals spasms or tense ureters and if at the same time in the urine appear erythrocytes, and an insufficient amount of calcium and phosphates is excreted, You need to think about a hidden kidney stone.

Functional Lymphatic vessel insufficiency

Each increase in pressure in the blood capillaries, each decrease in protein molecules in blood plasma, each increase in chloride molecules sodium causes an overload of the lymphatic vessels, accompanied by cessation of the ability to absorb by lymphatic tracts. In these cases there is a mechanical insufficiency of the lymphatic vessels. It can also be provoked by narrowing of the lymphatic vessels and removal of lymphatic trunks and nodes during surgery.

As a result of insufficiency of the lymphatic system, as a rule, there is the appearance of skin edema, as well as the accumulation and stagnation of water in the peritoneal cavity, in the thoracic cavity, edema of the lower extremities, edema of the brain. This insufficiency is always a secondary phenomenon, since the increase in filtration of blood plasma through the capillary walls is not compensated absorption of water by lymphatic vessels.

Lymphatic outflow from the lower extremities is facilitated by walking. Alas, increase in the number of cars, progressive "motorization" of mankind contributes to the development of elephantia, i.e. causes the expansion of veins and lymphatic vessels and, as a result, lymphedema. In 20-30 half of civilized mankind will have enormous swollen legs.

Restoration of the anatomical integrity of lung tissue after painful aggression depends on the function of intact lymphatic system. Each lymphatic insufficiency is accompanied by cluttering, clogging of lung tissue with albumin molecules. The latter, absorbing water (like sponges), provoke pulmonary edema with subsequent formation of connective tissue, i.e. fibrosis or pulmonary sclerosis. Thus, stasis in the lymphatic vessels of the lungs plays a dominant role in the formation of pulmonary edema.

Residents of cities and industrial centers with each breath, together with air is used to inject insoluble particles of dust, coal, gasoline into the lungs; in plains of Eastern Europe, in the areas of Asian, African and Middle Eastern desert population annually for four months inhales sand particles. Suppose that during the day, a person living in these areas, inhales 3-5 g of heavy insoluble particles, do A slight multiplication: within a month, these 3-5 grams will turn into 100-150 During the year, the amount of inhaled particles will be 1200-1300 g, in 60 years, this number reaches 72-100 kg.

a few months, if the mechanical, chemical, and The organism would not oppose microbial traumatism with a continuous, incessant phagocytosis and the action of lymph, which drains, splits, carries away dangerous particles. As early as 1902, Tendeloo demonstrated the presence of dust particles in the lymph. They are also found inside phagocytes.

Anthracosis and silicosis affect and destroy huge areas of the pulmonary tissues, if the phagocytic capacity of cells is reduced and if the drainage made by the lymphatic flow, becomes insufficient.

The permeability of the capillary wall can be impaired by hypoxemia, excess of microbial toxins, an increase in normal metabolites (urea, uric acid, sodium chloride, etc.), which clutter capillaries and cause thickening of blood plasma by blockage, obstruction of the lymph nodes located in the upper lymph flow, and slow down or completely delay its flow.

When the permeability of the membrane of blood capillaries is extremely increases when hyperporia appears that exceeds a certain level, the volume of the filtered liquid increases, which, without finding in the overflowing lymphatic vessels, fills the alveoli and bronchioles. Pulmonary edema develops with rupture of numerous blood capillaries, so lymph can turn into hemorrhagic.

Near the portal vein, which carries blood to the liver from all parts gastrointestinal tract, a powerful lymphatic vessel passes. Torrent lymph going to the liver is very variable: immediately after admission of food in the stomach, the volume of lymph increases by 80%. The so-called Serous inflammation of the liver can be provoked by blockage lymphatic duct. If the blood and lymphatic flows, and Also, intermediate fluids are in a state of stagnation, it is possible development of cirrhosis of the liver.

Viral hepatitis has long been known; when a painful syndrome and at the same time a microbe or a virus, the latter are usually prone to take it as the cause of the disease. Is it possible that the appearance of The virus was preceded by massive destruction of liver cells due to changes in the composition of the blood, a decrease in the flow of oxygen? Why not to assume that the role of viruses and microbes is rather an action gravedigger, not an extraordinary agent of painful change.

Microbiologists and clinicians forget about one epidemiological phenomenon repeatedly observed during each smallpox epidemic, cholera, plague - only one third of the population was sick, no more. We do not have Are we right to assume that innate immunity is twice as large more effective than the most dangerous infection.

Analysis of the origin of hepatitis shows that each decomposition molecules, even the breakdown products of protein molecules, are as toxic as toxins of the most harmful microbes and viruses.

Liver

Liver produces from 1 to 1.5 liters of bile in 24 hours; one part of it is directed to the the intestines, the other into the gallbladder, which serves as a warehouse, a reservoir. Bile converts fats contained in food substances into a substance which is then broken down in the small intestine into smaller fragments with the help of digestive enzymes. Most of these enzymes comes from the pancreas.

Dietary fats cannot be assimilated by the intestines in the form what they are contained in food. Under the influence of bile, fats break down into glycerol and fatty acids. In the cells of the intestinal mucosa Molecules of glycerol and fatty acids combine, and chemically Reduced fats begin their journey in the blood.

In the blood, fats with a large reserve of energy are again broken down into substances with a simpler structure and with less energy value. In this way, several quanta of energy are released and can be disposed of by cells and tissues. Products of fat metabolism they leave the body in the form of water and carbon dioxide. All these wonderful Transformations take place in a mineralized flow of water.

In the gallbladder, bile loses some of its water and becomes more concentrated; if it becomes too concentrated, Stone crystals are formed, often fixing calcium. Here The Interdependence Between Stone Formation and Extracellular Movement liquids.

Therefore, in the treatment of cholecystitis, one should not forget about the primary . Roles movement of extracellular fluids. Using only pharmacological and dietary treatment, it is impossible to achieve cure or prevention cholecystitis and avoid the formation of stones. Every time he hits the The intestines, the gallbladder contracts to pour the maximum on the fat bile. If there are stones in the gallbladder, they can provoke severe pain, penetrating into the bile duct. The best warning biliary crises is the prevention of food overload, as well as application of a hot heating pad to the liver and gallbladder.

For the liver it is hard work to produce 1-1.5 liters daily bile, it uses numerous substances to form bile, starting with the remnants of the decay of red blood cells. After fat emulsification bile acids break down in the small intestine and penetrate through the intestinal mucosa into the blood, then they are restored again into bile acids and return to the liver with blood flows.

In order to disaggregate bile acids in the intestine, action is necessary microbes - colibacilli, without these microorganisms, the continuous Restoration of bile acids would be impossible. It can be assumed that that the action of microbes is not always harmful, and even with anthropocentric point of view, only a very small part of the microbial flora of the intestine is an asocial element.

Approximately 30 biochemical functions of the liver are known; when Our research capabilities will go even further, will be discovered 130 more functions, and maybe more... Well, what we already is known enough to understand what a miracle a tiny liver cell. The liver, like other organs, does not stop his work at night. The Chemical and Hepatic Trust is forced to spend the night to detoxify, neutralize, remove the toxins of fatigue, accumulated during the day. If the liver does not excrete toxsubstances, sleep does not bring any rest to the body and in the morning a person wakes up tired, even more tired than at the moment of falling asleep.

In the United States, biochemists have evaluated the work of the liver: to provide it with chemical reactions will require a laboratory with a head, three assistants and five laboratory assistants! In the microscopic space in the bowels of each cells at breakneck speed throughout our lives innumerable reactions are born, take place and end, representing a great miracle that we observe with admiration.

Albuminuria in tissues. This term was created by Epinger and should have been to encourage microbiologists to carefully review and change their minds, to chew over his too dogmatic doctrines thoroughly. Continuing intensified vaccinations, end up with a very dangerous, illogical intellectual autovaccination.

Mill (1957) combined several clinical observations of children Jamaica suffering from cirrhosis of the liver provoked by hunger. The distance between the hepatic cells and in the circumference of the portal vein was blocked by eosinophilic coagulants. When the circulatory and lymphatic ducts, intermediate fluids are in a state of stagnation, inflow, cirrhosis occurs without prior introduction viruses.

Hepatic lymph contains more protein molecules than the lymph of other bodies. The so-called serous inflammation can be provoked by blockage of lymphatic flow in the liver. Lymphatic blockage pathways of the liver capsule provokes painful changes, stops movement of abdominal fluids. Ascites, the accumulation of gases in the thick intestine, pushing the liver to the chest, compresses the inferior vena cava, narrows the lymphatic pathways in the abdominal region and reduces the lymphatic flow in the liver.

Lungs

Pulmonary capillary vessels are remarkably adaptable to a variety of needs of the organism. At rest, 4-5 liters of blood go through them, which are necessary to ensure the fixation and delivery of oxygen to tissues and organs. With physical work, the capillaries of the lungs can receive 30 liters of blood per minute. The time of blood passage through the capillaries of the lungs at rest is 0.75 s, with heavy physical work - 0.35 s.

The number of pulmonary alveoli ranges from 300 to 400 million with a total surface of 50 m² when exhaling and 130-150 m² when inhaling. Alveolar cells have lipolytic, proteolytic and glycolytic household. They are also able to eliminate cholesterol particles.

If we recognize the specific activity of each cell, we must admit that outside of it, each cell conducts an orchestra of innumerable enzymes, every cell must have a center, the true mind of the cell, which guides, stimulates, inhibits, manages permeability, cytoplasmic flows, doses enzymatic microexplosions.

The tiny alveolar cell is not a passive membrane: it phagocytizes hematin and, if necessary, detaches from the alveolar tissue, in order to phagocytize (as leukocyte) fatty and coloring particles. It forms pseudopodia.

The large bronchi have a caliber of 200 mm, the terminal bronchi - 1 mm. Why do teachers of anatomy and anatomical treatises not give any instructions on the space and structural proportions of organs. The doctor does not have no concept or idea of either microscopic magnitude or microscopic complexity. He is in verbal captivity, he is free to burden himself with abstract terminology, but he cannot give of the true action of pharmacological substances, or of the individual results of surgical interventions.

This is a complete ignorance of the real anatomical values of the cellular economy, which must be known and respected, has created a truly anti-life antibiological position in medicine, Against Health: Endless Scopies, Crippling Biopsies, Satisfying only an unhealthy and dangerous curiosity.

The caliber of the bronchioles is less than one millimeter. Every time they are injected into bronchi lipiodol during X-ray examinations, whether they give themselves The report is that in this case, millions of bronchioles are injured for a long time - a huge breathing surface - and that only a tiny part of the surviving bronchioles can regenerate over many years.

The bronchioles lengthen and dilate during inhalation and take normal expiratory volume. Respiratory bronchiole is a group of alveoli, a zone of easy penetration of microbes. At this level, autocatalytic processes.

When you remember that for more than a century the human lungs have been clogged with anthracite dust, when one realizes that the population of large cities, the respiratory surface of the lungs shrinks every year, when you think about the spread of harmful gases from millions of cars, when one is present with increasing radioactivity, indifference of medical bodies to these disasters looks monstrous and becomes unacceptable. Now read a small excerpt from the report made by at the congress held in Rome in December 1957 on pollution atmosphere.

"In England, the lungs of the inhabitants of large cities, examined after death, are no longer pink in color, they are gray due to the inlay in them soot. The number of lung cancer cases is increasing endlessly. Fog, mixed with smoke, is an undeniable carcinogenic factor, - say doctors and biologists in California in the United States, They have exposed thousands of animals to the action of fog and smoke. This mixture prevents penetration of ultraviolet rays necessary for the normal growth of children - the number of rickets cases is increasing.

In Turin, 7 tons of dust and soot precipitation were recorded in 24 hours. the air is contaminated with a carcinogen -

benzopyrene, a by-product of gasoline, as well as sulfur, ammonia, carbon monoxide, the most dangerous enemy of breathing. Heating with gas increases this poisoning. The wind blows these particles for thousands of kilometers.

In Milan, 1,300,000 liters of gasoline are consumed daily. In Paris - approximately 9,000,000 liters; 7% of this gasoline, i.e. more than 600,000 liters non-combustible waste, pollute its atmosphere every day. Tens of thousands hydrocarbons intoxicate Parisians.

Hydrogen sulfide particles float in the atmosphere, fall, mixing with raindrops, on the stones of houses, covering them with a gray layer of dirt, and provoke wall erosion. Poor human lungs with their amazing protection mechanism are more durable than walls!"

Poisoned air generates chronic hypoxemia not only in the lungs, but also in the lungs. but also in minds. Thought, will are muffled, people in big cities become inert herds and thus easy prey for dictators and adventurers. Industrial civilization dies in the physical, moral and mental asphyxia.

Nervous system

In addition to his own specific functions, the body of the nerve cell must provide integration and continuous renewal of its cytoplasm, up to axon and dendrite endings. The nerve cell must also renew the contents of the nerve trunks, the length of which is a meter, and with all the with its ramifications - much more. What explosive dynamism, What incredible power is given to this tiny nerve cell, so that even though to perform the function of feeding and eliminating waste on a huge surface in comparison with the volume of the cell body.

In addition, the nerve cell is the center, the focus of signals, stimulation, the cradle of thought, science, art, passions, feelings, an administrative post that directs all physiological functions, registering every perturbation, the vigilant sentinel of all life phenomena.

If each cell of the brain is a headquarters, a center, controlling disintegration and restoration, destruction and reconstruction, It's like in this chemical warehouse full of molecules flying at speed bullet fired, how could it be born in the midst of all this rotation, a particle of thought that needs peace, concentration and reflection?

And here we are forced to state that nothing, three times we do not borrow anything about connections, the relationship between the contents of the cerebral cell, on the one hand, on the other hand, and with flashes of thought on the other. We are aware of disorders motor skills, sensitivity, but the interdependence between brain cells and Thought remains a mystery.

What is the value of discussions about consciousness and subconscious? And for how many years the epigones of Freud, Adler, Jung, to determine the boundary between the Conscious and the Subconscious?

Thanks to the axon and dendrites, the surface and volume of the nerve cell significantly increased. One could speak of omnipresence (ubiquitous presence) of every brain cell in every tiny, minute point of the body. The metabolism of a nerve cell is enormous.

It is necessary to process nutrients, organize the elimination of waste (metabolites) on surfaces and spaces, millions in size times exceeding the volume of the cell body itself.

The brain cell is the most wonderful miniature machine of all existing in the world. And with what disdain, with what ignorance A person uses this machine! It destroys its power, its functions malnutrition, laziness, naïve credulity, their schools, suffocating the flourishing of free thought, overloading memory, and brain cells, eaten away by rust, sink into inertia, final and irreparable.

Myelin sheath. Lipoprotein membranes that make up the membrane myelin, the number of which reaches several dozen, changes permeability of the surface of nerve pathways. These membranes provide ion transits, without which the conduction of the nerve impulse would be impossible.

What is the significance of the numerous myelin sheaths? This is protection ion transit orientation, anti-sputtering, anti-scattering, ion leaks that must remain in the axon to ensure the planned path of the nerve impulse.

Chapter 3

Pathology

Metabolites - Dominant Factors

in Pathology and Clinical Presentation

Metabolites - ashes of living substances, waste products of cellular and tissue metabolism, if they are not eliminated, clog, clutter the excretion channels end products of metabolism. There are dense metabolites, connected in chains of giant molecules found in the blood and lymph or in extracellular fluids and posing a great danger to organism.

Blockage of blood capillaries is the basis for the occurrence of capillaritis, arteritis, embolism, thromboangitis, phlebitis, coronaritis, cerebral hemorrhages (hemorrhages), kidney diseases.

Blockage of lymphatic capillaries is the main cause of lymphangitis if blockage is accompanied by microbial aggression; if the blockage is clean mechanical - this is elephantiasis (elephantiasis). Biliary blockage capillaries leads to inflammation of the biliary tract of the liver. Circulatory capillaries, lymphatic, biliary - constricted, suffocating, expelling their plasma, its fluids into the abdominal cavity. There is ascites, and in the cemetery dead capillaries, a shadow of proliferating connective tissue appears, covering the grave of parenchymal cells with a cover of melancholic oblivion.

Gallstones, urinary sand - this is the invasion of calcium molecules, associated with phosphates, oxalates, and cholesterol, which clog convoluted tubules of the kidneys, located in the gallbladder, lens, articular cavities, periarticular tissues (chronic hypertrophic rheumatism), on intravertebral discs (gold-bearing veins for rheumatologists and surgeons!), on the inner surface of the cranial ascertaining

an excessive loss of calcium, you observe rickets in children, osteomalacia of bones in the elderly.

Scrupulous descriptions of special pathology are overloaded with outdated ones concepts. Each little syndrome is christened with an abstract term. S true self-forgetfulness diligently group insignificant local lesions, but they are not aware of the large flows of life. When pathologists and clinicians understand and realize that in most diseases, the primary factor is capillary blockage, arterioles, bronchioles, passages clogged with giant overoxidized metabolite molecules, the number of disease labels will be reduced, and the excess of medications and surgical interventions will be reduced, and Simple, effective and modest therapy will finally be applied doctors who have seen the light.

Rhythm and oxidation state dominate in the entire pathophysiology. Combustion, Oxidation, normal elimination of metabolites - absolute health. Combustion, oxidation, inadequate elimination of metabolites - condition diseases.

Asthma is an accumulation of metabolites in the blood, lymphatic capillaries and in extracellular fluids of bronchioles; eczema, urticaria, Pruritus is the stagnation of metabolites in the skin. This is a change of direction humoral flows, which carry excess metabolites to the skin, then to the Bronchiolas.

Brain diseases

(desiccated neurology and disoriented psychiatry)

25 passed centuries, since Hippocrates created the term "melancholy" (black bile) to characterize the absolute relationship of brain disease with humoral disorder. Modern psychiatry in search establishing a connection between structures and functional disorders of the central nervous system is forced to turn to the modern neurology.

Neurology (1958), this huge, very important branch of medical science, proud of its topographical diagnostics, boasting of its pseudo-thematic accuracy of definitions of innumerable cerebral damage, due to some strange intellectual delusion deviated from the norm and continued her research in nursing patients, completely neglecting cerebral irrigation of blood and lymphatic capillaries.

Venous loops of capillaries in functional contact with lymphatic capillaries continuously eliminate metabolites and purify non-stop intracerebral fluid. Constantly moistening all sections (furrows, convolutions) of the cerebral cortex, irrigating

its ventricles, intracerebral fluid is as vital as the Nile Delta in agriculture in Egypt.

Intracerebral fluid flows out of the subarachnoid plexus to then merge into the central canal of the spinal cord. Each slowdown stream, each of its delays provokes a change in the composition of the brain. In these cases, there is a malnutrition of 13 billion neurons cerebral cortex, which should not be neglected.

Slowing down the flow of cerebral fluid causes a decrease in inflow to brain cells, reducing their activity, provoking even cellular necrosis, if the degree of oxygen deficiency makes life cells impossible. Gentlemen neurologists should remember that one gram The brain contains 30 times more oxygen than one gram of muscle. S On the other hand, each slowdown in the flow of intracerebral fluid in lymphatic vessels increases the accumulation of metabolites in it.

Each oversaturation of the cerebral fluid with urea causes chronic intoxication of neurons of the brain and spinal cord. Each increase Uric acid crystals provoke their penetration into the membranes nerve cells, into the roots of cerebral nerves; hence the origin neuritis, polyneuritis, neuralgia. Viruses are transmitted to brain cells blood and lymphatic capillaries through the intracerebral fluid.

If the cells are normally oxidized and their membranes are not deformed, if blood and cerebrospinal fluid retain their normal composition, the virus will be neutralized already during the journey. Every Glut of the intracerebral fluid with sodium chloride causes cerebral edema. Salts calcium provokes their deposition on the inside at a young age The skull is the anatomical and pathological substrate of Mongolianism. In the mature age calcium deposition on the inside of the skull is the cause of the Paget's disease (Page). On the other hand, deposition innumerable crystalline molecules in the capillary region and pre-capillary arterioles of the brain is at the root of nutritional disorders, necrosis of numerous neurons and softening of the brain.

Each obstruction of the flow of intracerebral fluid into the central canal The spinal cord also contributes to the development of the hydrocephalus. Later in life, cerebral edema, squeezing venous and lymphatic trunks, can cause cerebral thrombosis.

Ophthalmologists Need to Reconsider Their Concepts of the Disorder optic nerves and retina. Without understanding the correlation between capillary cerebral irrigation, without in-depth knowledge of changes in the intracerebral fluid Rational treatment of the retina, glaucoma, cataract is impossible.

Otorhinolaryngologists should remember that the lacrimal duct is located in the direct connection with the cerebral fluid. Otosclerosis could be cured if specialists were acquainted with the pathophysiology of irrigation, oxidation of the brain and the role of intracerebral fluid.

Rational hydrotherapy based on humoral and cellular physiology, dietetics, guided by a complete urine analysis, therapy, based on the methodical application of leeches behind the ears and on the area liver, hot chest wraps that open the pulmonary capillaries and normalizing the formation of formed blood elements, capillary therapy with turpentine baths, on the treatment of renal insufficiency, opens up remarkable possibilities for eliminating the disorders of the central nervous system.

A huge number of mentally ill people (there are more than 5 million of them in the United States), vegetating in shelters, is never clinically examined, and they could be cured or alleviate their condition. It is necessary to start with an examination of the respiratory dysfunction, blood circulation and elimination of retained metabolites.

Most mentally ill people remain without treatment due to the fact that psychiatrists are never interested in studying the relationship between mental and mental somatic dysfunctions.

Comrade neurologists and psychiatrists, wake up! The therapy offered to you with It is successfully used for brain diseases. Psychiatrists do not they bother to examine patients physiologically.

The so-called consultation is mostly reduced to a conversation between a doctor and a patient; Psychiatrists are not interested in the volume of breathing patient, neither the daily amount of urine, nor the condition of the skin.

Examining the mentally ill, we find hypoxemia and insufficiency kidneys. We have achieved more than favorable results

in patients with manic psychosis. Fruit and vegetable diet, extended course of baths with Hay infusion, hot chest wraps, Goriflower tincture (spring adonis) gave very satisfactory results. Less than The results of treatment of the depressive form of psychosis were favorable.

We are convinced that a thorough physiological study of all functions in of the mentally ill, their normalization with the help of our modest means will open up broad horizons for the benefit of patients and the awakening of psychiatry.

Defective children

Number defective children ranges between 2-4% of the world's child population. With brain defects as a result of prenatal pathology occur in 90% of cases. When the mother suffers from renal disease during pregnancy insufficiency, placental fluid and blood of the umbilical vein overloaded with sodium chloride, which can cause cerebral edema in fetus. In addition, during pregnancy, the mother often has decalcification, then the fetus may undergo complications due to accumulation of calcium in the skull (Mongolism). If during the mother's pregnancy did not have enough oxygen, the fetus at the time of birth Brain hypoxemia with numerous injuries may manifest itself neurons.

The etiological factors of postpartum pathology can be meningitis, encephalitis, physical traumatism. According to Jeannet (Jeannet, 1956), there are one hundred defectiveness syndromes, of which 20 are the most important. Janet and his collaborators examined 2500 children, of whom 40% with severe brain damage, with an IQ development below 25%; for 30% the coefficient varied from 25 to 50% and only 30% had a coefficient of 50-75%.

Examination of children should establish:

- 1) social conditions,
- 2) visual and auditory disorders,
- 3) speech and movement disorders (walking),
- 4) difficulties in reading and writing,
- 5) the presence of athetosis. Prognosis of mental recovery is more optimistic in cases of athetosis (disordered involuntary movements of the fingers) and ataxia.

In cases of spastic hemi di quad riplegia, the prognosis is more gloomy, but Even in these cases, our treatment helps to improve the prognosis.

In early childhood, there are two diseases accompanied by deformity skulls: these are hydrocephalus and subdural hematoma. Using leeches for ears, salt-free fruit and vegetable regimen and hyperthermic baths, we we achieve a great improvement in these cases. We prefer sacrificing our neurological curiosity and avoiding every useless trauma and wound. For us, the inviolability of the body of the patient is more important than the satisfaction experienced in establishing the impeccable diagnosis. Allowed out of a sense of professional pride in the swagger of one hundred percent accuracy of diagnosis is great delusion. There is never a complete diagnosis – every diagnosis Always particles. Create a label that can't cover everything the factors of the disease, and in every disease there are always unrecognized, unknown factors.

The results of cerebral disorders can be considered secondary insufficiency: respiratory crisis, circulatory crisis, thermolability, sleep disorders. For us, these disorders are result of progressive compression of the brain by calcium deposits in the cranium. If treatment is started in a timely manner, these disorders do not appear.

In epileptics, the development of a deficit in brain activity is observed extremely rarely. Napoleon died at the age of 51, Dostoevsky at 62 year. I do not know the date of Mohammed's death, but, like everyone else, I know that These three people were epileptics. I would be very happy to find at least a particle of their intelligence from honored masters of neuropathology and neurosurgeons!

Chronic malaria - swamp fever (paludism)

Chronic malaria is a poorly understood latent chronic infection, the parasite of which is disguised and its manifestations seem banal or little characteristic. After the two world wars, chronic malaria so is now common, which is becoming a

kind of chronic "pandemic".

Chronic malaria is often completely silent, hidden in some corners organism. It develops quietly. We pass by this evil, not recognizing him, not even wanting to look him in the face.

Unknown to most, unidentified and untreated, hidden malaria unfolds a chain of his insidious, treacherous manifestations in the many subjects without being detected during their lifetime. As if by conspiracy, the true causes of numerous unfortunate people are hidden cases, recalcitrant, not amenable to any local therapy, with almost the final distortion of the integrity of the affected organs.

Before setting out our own comments on the diagnosis and Chronic Malaria Treatment, we will demonstrate a small list of observations made by other authors. We will not miss, of course, opportunities to emphasize the opinions that confirm our pathogenetic and therapeutic concepts. We give the floor to Prof. Rieux from Val de Grace, an outstanding specialist in tropical diseases. Prof. Rieux is very categorical in believing that the origin of true malaria is necessarily associated with the ascertainment of a malaria parasite in the blood patient.

Clinical manifestations that may be present in "old" malaria patients A year after the last bout of fever, one of two interpretations: either it is a complication of malaria infection, "residual phenomena" that are sometimes evolutionary in nature and have only one initial association (but not natural) with the original malaria, or has nothing to do with malaria: biliary and renal colic (seizures), low-grade fever, septicemia with pyrogenic (fever-inducing) microbe, endocarditis, amoebiasis, etc.

clinical analogy with malaria and never the specifics inherent in the malaria pathogen. In all cases of the absence of this pathogenic The diagnosis of malaria is excluded.

After such arguments, the logical conclusion should be reduced to surgical or drug treatment of biliary-septic attacks, treatment of local disorders in "old" malaria patients, but never The idea of malaria was admitted. We do not resort to surgical intervention, neither to the barbaric method of lavage of the gallbladder, nor to the sulfa or even to the universal panacea - antibiotics, and our The patients are recovering.

The presence of the swamp fever parasite in the blood retains all its significance for a positive diagnosis. The misconception is that Laboratory analysis is taken as the final criterion. Allow me to Here I remind you of an eloquent example of another chronic pandemic - about tuberculosis. Doctors are well aware that in addition to the classical other tuberculosis. X-ray examination of the lungs can be mute, and nevertheless the narrow framework in which they tried to enclose tuberculosis, bursting at the seams.

After rickets, fibrinous pleurisy, erythema nodosum, I had to to expand the limits of tuberculosis borders and lesions: Large number renal injuries, eye, skin, various rheumatic manifestations, keratitis, etc. For 50 years, they were treated very poorly chronic and acute iridocyclitis with antisyphilitic drugs, until they understood the true nature of its origin: tuberculous or rheumatic.

The search for an acid-fast bacillus remains of paramount importance, when it ends with a positive result. But he cannot rule out diagnosis of tuberculosis when its result is negative. The same is true in cases of malaria. The absence of a parasite in the blood does not refute the diagnosis malaria.

Prof. Chauffard in 1922, after hearing Rieux at a meeting Medical Society of Hospitals, gave the following examples, exclusive, in his opinion, cases of latent malaria malaria.

The first example. One carter fell ill with swamp fever 10 years ago, repeated every third day, and then it seemed completely cured. But then he gets a rather strong blow with the drawbar on the spleen area. Three days later, it comes to us with a clear outbreak malaria, which recurs every three days. Here we have latent malaria, imprisoned in the splenic parenchyma until the day she was awakened injuries and returned to activity. But this is not chronic malaria.

The second example. One soldier in 1916 fell ill with swamp fever in Dardanelles. In the first year, attacks recur every 10-15 days, in During the fifth year there were two attacks. There is a weakening of the disease and then recovery. And

yet, during the fourth year, a soldier develops typical Addison's disease, atrophy of one optic nerve and left-sided polyneuritis. Successful treatment with a course quinine and arsenic drugs confirmed the malarial etiology diseases.

According to Schoffard, it is necessary to recognize the presence of the malaria parasite in the reservoir organs, such as the spleen, bone marrow, adrenal glands. However, Schoffard forgets the liver, aorta and spinal cord. But now the doubtful testimony of Prof. Marcoux (1926): "The name " latent malaria" is evidence of an archaic concept that does not based on any scientific basis. When the blood is completely purified, sterile is already a complete cure for malaria" (p. 186).

However, Prof. Muhlens (1931), director of the Institute of Tropical diseases in Hamburg, still defines malaria as a disease chronic, recurrent. Circulatory disorders, colds, acute increase in external temperature, debilitating fatigue, bleeding, sports, dancing, excess alcohol, adrenaline injections, strychnine, a cold shower on the spleen area can provoke, - states Prof. Müllens, "acute attacks of malaria even after 15 years after the onset of the disease.

Prof. Mattel has seen several atypical cases without parasites in the blood. They appeared in the blood only after a cold shower all these patients have never had typical attacks of malaria.

Before the First World War, England, France, and Germany were practically are malaria-free. To study it, you had to go to Africa or Asia.

During the First World War, malaria began its march throughout the Europe and gives more and more dangerous forms in areas where thisName It was endemic. Here is an important observation by Dr. Oehlecker (Oehlecker, 1920). A German soldier returned to Hamburg after six years of stay in Cameroon.

During his stay in Africa, he scrupulously carried out prevention, systematically taking the necessary doses of quinine. Falls ill in Hamburg his father. Urgent heavy surgery is required, surgery requires massive blood transfusion. The patient's son, a former colonist, offers his blood. A complete blood test of the donor is done, the absence of malarial plasmodium, and blood tests were repeated repeatedly. 15 days after the transfusion, my father developed an acute attack of malaria. Both father and son are now found to have parasites of the same type of malaria.

When treating acute attacks of malaria with quinine, the parasites disappear from the blood in a few days. Gametes disappear within 18 weeks, but the remnants Plasmodium remain in the capillaries of visceral organs and in the bone marrow. New generations of parasites settle down comfortably, and chronic Malaria continues its methodological activity.

In the malignant form of malaria, the parasites penetrate the capillaries of the brain. According to Moreira de Fonseca, nervous syndromes the following: comatose-meningitis, hemiplegic, aphasic, amnesic, boulevard, cerebral, Landry syndrome, myelitis, poliomyelitis, neuritis and polyneuritis, chorea-like, tetan-like, parkinsonian, myasthenic. A huge number of cases of this kind describes Italian, English and Brazilian medical literature.

So, you need consistency between the laboratory and the clinic. In laboratories, as in a clinic, need to have not only deep knowledge, but also mental balance with a sharpened critical sense.

A person sees not only with his eyes, but also with his "brain". You need to be able to neglect lab result that blends too well with our desires, with our personal tendencies and the mysticism of the era.

Cardiac Insufficiency

Healthy heart At rest, it throws out 70 to 80 ml of blood in each systole aorta. With strenuous work, it can throw out 100-150 ml of blood per one systole. Within a minute, a healthy heart throws 6 liters into the aorta 420 liters per hour, 10,000 liters per 24 hours. the ability to imagine how many times it is possible to increase the cardiac flow rate without the use of tonics. In cases of decompensation Cardiac flow rate can decrease to 3-4 thousand liters per day.

In case of heart failure, for the organization of treatment of the heart muscle First of all, it is necessary to remove all

obstacles on the way peripheral circulation. To do this, it is necessary:

- 1) to eliminate congestion in capillaries, arterioles, venules and pulmonary veins, if there is a decrease in tidal volume (hot thoracic wraps, camphor);
- 2) Reduce the volume of the liver and spleen, reduce capillary congestion of all internal organs (heating pad on the liver area, enemas, inside - soda sulfate or Carlsbad salt).

If asystolic decompensation with edema, ascites and if at the same time a lack of urea is found in the urine, urinary acids, phosphates, sodium chloride, i.e. the retention of these substances in In these cases, treatment begins with the use of leeches behind the ears and on the liver area, then a fruit and vegetable diet without salt is prescribed.

By increasing tidal volume, we increase the flow of oxygen to the myofibrils of the heart muscle and to the muscular sheath of arteries and arterioles; reducing portal and visceral congestion without resorting to means, toning the heart muscle, we normalize the flow rate of each systole and, In addition, we increase the inflow of nutrients (proteins, fats, carbohydrates, enzymes, macro- and microelements, diastases, hormones, vitamins, etc.).

The use of leeches will restore the excretion of retained substances; Applying the heating pad to the heart and liver area, add heat to it energy, which helps to increase the blood supply to the myocardium, dilation of coronary arteries, reduction of blood stagnation in the abdominal cavities.

Methodical lavage with enemas with chamomile infusion or solution Soda improves intestinal evacuation and kidney lavage. If during the period chronic decompensation of the heart, the condition of the lungs is changed (spasm of the bronchi), abdominal organs, kidneys, then with the help of mildly acting cardiotonic drugs, such as curantil, theophylline and diacarb, you can quickly eliminate congestion in blood and lymphatic capillaries, to increase the resorption of edematous fluid in the abdominal cavity, reduce pulmonary and brain edema, and most importantly - facilitate myocardial function and improve the activity of the kidneys and liver. Reception glycerol promotes the release of uric acid, urea and mineral salts accumulated in the convoluted tubules of the kidneys during the decompensation.

Treatment with digitalis. Never give digitalis (digitalis) without preliminary preparation of the patient. It includes a strict a fruit and vegetable diet with a predominance of raw fruits and vegetables. If according to for any reason, this is not feasible, then the patient must observe bed rest and for three days he needs to be given 4-5 times a day a glass of milk, excluding other food.

With a strong enlargement of the liver, it is necessary to days to give the patient was given potassium acetate and cholagol 4 times a day. During this period, it is necessary Put two or three leeches on the liver area. And only on the third or The fourth day after such preparation, you can start using digitalis.

The first three days - 3 times a day after meals, the next four days - 2 times (after breakfast and dinner), then 1 time a day after lunch.

Digitalis does not affect the damage to the myocardium itself, it acts to decompensation syndrome: slows down heart contractions, intensifies and lengthens diastole, the pulse becomes fuller and more rhythmic, the heart it fills with blood better, feeds better, and is better supplied with oxygen.

Digitalis causes the contraction of blood vessels in the abdominal cavity, reduces capillary congestion in the abdomen, liver, intestines and contributes to the restoration of normal diuresis.

Digitalis molecules are fixed on myocardial myofibrils and are very leave them slowly, so there is a danger of oversaturation digitalis, i.e. digitalis intoxication. It is expressed in too much slow pulse, which can become bigeminic (arrhythmic).

In such cases, it is necessary to stop taking digitalis, give caffeine, coffee, fruit and vegetable diet. During this period, atropine should not be taken. Do not Digitalis should be taken for more than 10 days (at doses of 3 times a day). Given the slow elimination of digitalis, it is necessary to take breaks in take it for 2-3 weeks, often longer, it depends on the condition patient.

Thus, a very simple treatment achieves the suppression of cardiac decompensation. We must not forget that the disorder of all functions heart begins with disorders of the kidneys, liver, intestines and many other functions of the body.