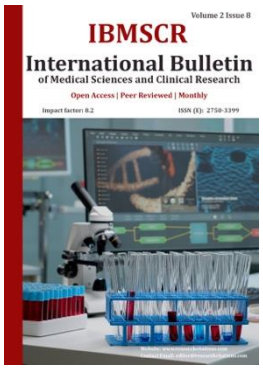

MORPHO-FUNCTIONAL CHANGES THAT OCCUR IN THE HUMAN BODY AS A RESULT OF GROUNDWATER CONSUMPTION.

Teshayev Shuxrat Jumayevich
professor.,
Eshonkulov Jamshid Orziyevich
Bukhara State Medical Institute, Uzbekistan
https://doi.org/10.5281/zenodo.11091594

ABSTRACT

This article states that any external physical, chemical and biological effects on a living organism cause changes in the structure, function of the organs of this organism, as a result of which the organism responds within compensatory-adaptive mechanisms by changing clinical-laboratory parameters, including the morphology of the organs. Among the external influences, one of the most common in modern times is consumed waters with a wide variety of compositions, salts, macro and micro elements in excess of water, chemical and biological composition have been shown to negatively affect the organs and systems of the body.

Keywords. Biofaol supplements, immunological, cytogenetic, hematological methods, seasonal waters, grunt waters and interlayer waters.

АННОТАЦИЯ

Ушбу мақолада тирик организмга ҳар қандай ташқи физик, кимёвий ва биологик таъсирлар ушбу организм аъзолари тузилиши, функцияси ўзгаришига олиб келиши, натижада организм компенсатор-мослашув механизмлари доирасида клиник-лаборатор параметрлар, жумладан аъзолар морфологиясини ўзгартириш орқали жавоб бериши келтирилган. Ташқи таъсирлар орасида ҳозирги замонда энг кўп учраётган тасирлардан бири бу турли хил таркибли истеъмол қилинаётган сувлардир, сувнинг керагидан ортиқ миқдордаги тузлар, макро ва микро элементлар, кимёвий ва биологик таркиби организм аъзо ва тизимларига салбий таъсир кўрсатиши исботланганлиги келтирилган.

Калит сўзлар. Биофаол қўшимчалар, иммунологик, цитогенетик, гематологик усуллар, мавсумий сувлар, грунт сувлари ва қатламлараро сувлар.

АННОТАЦИЯ

В этой статье утверждается, что любые внешние физические, химические и биологические воздействия на живой организм вызывают изменения в структуре, функционировании органов этого организма, в результате чего организм реагирует в рамках компенсаторно-приспособительных механизмов изменением клинико-лабораторных показателей, включая морфологию органов. Среди внешних воздействий одним из наиболее распространенных в наше время является потребление воды с широким разнообразием состава, солей, макро- и микроэлементов в избытке, химический и биологический состав которых, как было показано, негативно влияют на органы и системы организма.

Ключевые слова. Биодобавки, иммунологические, цитогенетические, гематологические методы, сезонные воды, грунтовые воды и межслойные воды.

According to the results of studies, water wells were mainly popular in the Fergana Valley, Jizzakh, Samarkand, Bukhara, Kashkadarya and Khorezm regions, due to the passage of the Great Silk Road, which in ancient times connected the East with the west, and in most cases they were mined by hand. They varied in depth from a few meters to 200 meters. For example, the depth of the famous Kheywak water well in Khiva was 10 meters, and the depth of the water well in Pomuk Township, Mirishkor district, Kashkadarya region was 97 meters.

Grunt water is water collected below the surface of the Earth, in the pores of the first juicy mountain rocks. G. s. it will be on the second layer of waterproofing from itself. This layer can be made up of giltuploar, intact limestone, otqindi as well as metamorphic rocks. Grunt waters arise from the surface of the Earth from the accumulation of Channel, River, rainwater, atmospheric water vapor (after thickening) down the pores of mountain rocks in a watertight layer. The depth of their location depends on the lying position of the waterproof layer and the layer of aqueous mountain rocks. For grunt water to settle in the first porous layer near the Earth's surface, its levels, chemical composition and physical properties are natural (air temperature, type and amount of precipitation, close-distance of natural water bodies to the surface of the Earth) and artificial (reservoirs, irrigation facilities, sewage, etc.). K.) varies for reasons. Grunt water fills the pores of alluvial deposits in river valleys (sand, sandstone, gravel) as well as mountain rocks deposited as a result of Glacial Drift, and dyun deposits in deserts.

The murder of Yukor suvlari — the murder of Yukor Suvlari of the murdered guak bushlikdarid joylashgan suvlar, the murder of muses (muses), the murder of Bukhsimon huratdag suvlar. In addition, the general souvenir resource includes a part of souvenirs, souvenir supplies and a high-quality folk resource. Sugoriladigan earlaring land reclamation the state of the grant suvlaring the state of belgilanad. In addition, suvlarini teaches hydrogeology. There may be a molecular weight of the turadigan body or a lateral difference in the gravitational or erkin state. The first Tajik-Afghan war in history took place in the city of Khujand. Yer osti suvlari suvlary zhinslardy tuplanish are characterized by the basins of woof (yumshok zhinslardy), dara (tomir) — basins of zhinslardy and karst (cave) (darz-karst-erzil eridigan carbonate and gypsum zhinslard) suvlarigsky swamp. The location of the crater or stop of suvlari tuprok suvi (um. Cannon suvlari), mavsumiy suvlari (south souvlari; aeration of suvlari zones for plant destruction or harvesting); Gynt suvlari (er yuzasiga eng Yakin beranchi suv shkazmaidigan Kazam ustida typlanadi) and suvlarga (bosimsiz, bosimli, Artesian, SUV shkazmaidigan Kazamlar Urtasida joylashgan Kazamlar) boulevards suvlarga [2,4,7].

According to the origin of groundwater infiltration formed by the absorption of atmospheric precipitation, River and irrigation water; condensation formed from the thickening of water vapors in layers of mountain rocks; sedimentation and magma formed by the burial of sea water in the process of formation of sedimentary mountain rocks are divided into yuvinil water, which is produced when cooling or The natural outflow of groundwater to the surface is called a spring, (a spring), and is divided into flowing and boiling (Boiling Springs).

Groundwater is natural solutions, almost all known chemical elements are found in its composition. In terms of mineralization (total amount of dissolved substances in water, G/L),

groundwater is divided into freshwater (up to 1.0), saltam (1.0—10.0), saline (10.0— 50.0) and namakob (more than 50) types. In terms of temperature, it is divided into cooled (up to 4°), cold (4-20°), warm (20-37°), hot (37-42°), boiling (42-100°), and superheated (above 100°) groundwater.

Infiltration water is common in nature, the rest is very rare in its pure form. In the supply of water to the population, industry and pastures, in the irrigation of land, in medicine (mineral waters), in the supply of heat (hot waters), various salt and chemical elements (iodine, boron, bromine and so on.) groundwater is used in extraction. Groundwater causes waterlogging and salinity of the land. To combat this, open and closed horizontal drains and borehole wells are drilled. In the deserts, groundwater s was widely used. The Karakum, Kyzylkum and Ustyurt pastures are mainly supplied with groundwater.

On the territory of Central Asia, more than 150 large groundwater deposits are annealed. Their annual recoverable exploitation Reserve is over 1,500 M3/s, freshwater contribution is close to 1,000 M3/s, and the rest is mineralized to varying degrees (2-3 to 15 g/l). There are more than 40,000 used borehole wells in Central Asia, of which about 5,000 are artesian wells with pumped water; many of them are used in crop irrigation (CF. Artesian waters).

The indirect effect of groundwater with a high chemical composition is explained by the formation of radiolysis of water, which makes up 70-80% of the body, in which radicals with oxidative and alkaline properties are formed when water ionizes. In addition, the formation of atomic hydrogen, hydroperoxyl radicals, hydrogen peroxide is also significant. Free oxidizing radicals undergo an enzymatic reaction, as a result of which active sulfhydryl groups are converted into inactive disulfide compounds. These biochemical processes lead to a decrease in the catalytic activity of enzyme systems, which in turn leads to a decrease in DNA and RNA in cell nuclei, a condition that disrupts the processes of their renewal.

A healthy heart contracts and expands rhythmically and without interruptions. In one work cycle of the heart, three phases are distinguished:

1.When it contracts until it is full of blood, blood is poured into the ventricles of the heart through open valves (at this time they remain at rest). The contraction of the compartment begins where the vessels of the covac vein enter, so their valves close and the blood cannot return back to the vessels of the covac vein.

2.As soon as the compartments relax at the same time, the contraction of the ventricles begins. The three-and two-layer valves that separate the compartments from the ventricles close and prevent blood from returning to the compartment, and the semicircular valves in the aorta and pulmonary vessels open. Contraction of the ventricles drives blood into the aorta and pulmonary artery.

3.A pause (diastola) is a short period of rest of the organ. At this time, blood from the vessels enters the compartment and partially falls into the ventricles. When a new cycle begins, the remaining blood in the compartment falls into the ventricles – the cycle repeats.

One cycle of cardiac work lasts about 0.85 seconds, of which only 0.11 seconds corresponds to the time of contraction of the vesicles, 0.32 seconds corresponds to the time of contraction of the ventricles, while the longest is the resting period, lasting 0.4 seconds. During rest, the heart of an adult works in the system in about 70 cycles per minute. Usually, the heart cycle is an orderly process, which is based on the conduction of excitation in the heart. Typically, an electrical pulse occurs in the sinoatrial node, where the upper umbilical

vein joins the right ventricle. The depolarization wave spreads rapidly through the right and left compartments, reaching the atrioventricular node, where it spreads significantly. The impulse then spreads rapidly along the GIS chimney and passes along the right and left feet of the chimney. They branch into Purkine fibers and the impulse spreads to the myocardial fibers, causing them to contract.

The nervous system regulates the frequency and strength of heart contractions: (the sympathetic nervous system leads to increased contraction, parasympathetically weakens). Located in the medulla oblongata, the vasomotor Center, which is part of the vegetative nervous system, receives signals from various receptors, such as: proprioreceptors, baroreceptors, and chemoreceptors, as well as warning signals from the limbic system. Together, these receptors usually allow the vasomotor center to fine-regulate the heart through processes known as cardiac reflexes.

The rich supply of afferent fibers of the anterior and posterior surface of the ventricular errant nerve determines the formation of important cardiac reflexes, the abundance of efferent fibers directed to the SA and AV nodes of the errant nerve allows to regulate production and performs the function of conducting an electrical impulse.

References:

1 Мавлонов Ғ. О., Кенесарин Н. А., Ер ости сув хазинаси, Т., 1960.
2.Кенесарин Н. А., Султонхўжаев А. Н., Ер ости сувлари ва улардан халқ хўжалигида фойдаланиш, Т., 1962
3. Мирзаев С. Ш.,Формирование и размещение запасов подземных вод Ўзбекистона [Вопросы методики их изучения и проблемы хозяйственного использования], Т., 1974
4. Ҳасанов А., Шарипов Э., Ер ости сувлари сирли хазина, Т., 1970.Газиева З.Ю. Гимнастика билан шуғулланувчилар юрак-қон томир тизимининг функционал ҳолатини баҳолашнинг самарадорлиги / Биология ва тиббиёт муаммолари. - 2020. - № 4 (80). - С. 55-56.
5.Мусаев У.А. Гимнастикачи болаларда мувозанатни сақлаш қобилиятини ривожлантириш // Тиббиёт ва спорт. – 2019. – № 1. – С. 28-29.
6.Норова М. Б. Антропометрические параметры головы и челюстно-лицевой области детей с сахарным диабетом и их связь с показателями физического развития: диссертация... на соискание ученой степени доктора философии (PhD): 14.00.02 / Норова Мавжуда Баходуровна; 2018. – 112 с.
7.Рахимов М. И. Показатели физического развития детей и подростков 5-16 лет / М. И. Рахимов // Филология и культура. – 2019. – № 2(24). – С. 57-59.
8.Хамидова Н.К., Рузиева М.Х., Файзиев Х.Б. Антропометрические параметры детей с различными пороками сердца (обзор литературы) // Вестник науки и образования. – 2020. - № 24(102). - С. 96-102.
9.Шабалов Н.П. Педиатрия.- Санкт-Петербург: СпецЛит, 2003.-С. 37- 57.
10.Ширинов Ж. Н., Тешаев Ш. Ж. Мактабгача ёшда бўлган қиз болаларда умуртқа поғонаси морфометрик параметрларининг жисмоний ривожланиш кўрсаткичлари билан боғлиқлиги. // Биология ва тиббиёт муаммолари. – 2016. - № 4(91). – Б. 121-125.

11.Ядгарова Г. С. Морфометрическая характеристика головы и зубочелюстной системы у детей, находившихся в искусственном и естественном вскармливании: диссертация... на соискание ученой степени доктора философии (PhD): 14.00.02 / Ядгарова Гульнора Садритдиновна; 2018. – 112 с.

12. Sharipova Gulnihol Idiyevna. DISCUSSION OF RESULTS OF PERSONAL STUDIES IN THE USE OFMIL THERAPY IN THE TREATMENT OF TRAUMA TO THE ORAL MUCOSA// European Journal of Molecular medicinevolume 2, No.2, March 2022 Published by ejournals PVT LTDDOI prefix: 10.52325Issued Bimonthly Requirements for the authors.

13. Sharipova Gulnihol Idiyevna. THE EFFECTIVENESS OF THE USE OF MAGNETIC-INFRARED-LASER THERAPY IN TRAUMATIC INJURIES OF ORAL TISSUES IN PRESCHOOL CHILDREN//Academic leadership. ISSN 1533-7812 Vol:21Issue 1

14. Karshiyeva D.R.,The Importance of Water Quality and Quantity in Strengthening the Health and Living Conditions of the Population//CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES. Voleme: 02 Issue: 05I Oct 28 2021 Page 399-402

15. Karshiyeva D.R.,The Role Of Human Healthy And Safe Lifestyle In The Period Of Global Pandemic-Covid 19//The American Journal of Applied Sciences.Voleme: 02 Issue: 11-15I November 28, 2020 ISSN: 2689-0992. Page 78-81

16. Karshieva Dilovar Rustamovna. THE EFFECT OF TOBACCO SMOKING ON THE ORGANS AND TISSUES OF THE ORAL CAVITY / / World Bulletin of Public Health (WBPH) Volume-19, February 2023 ISSN: 2749-3644