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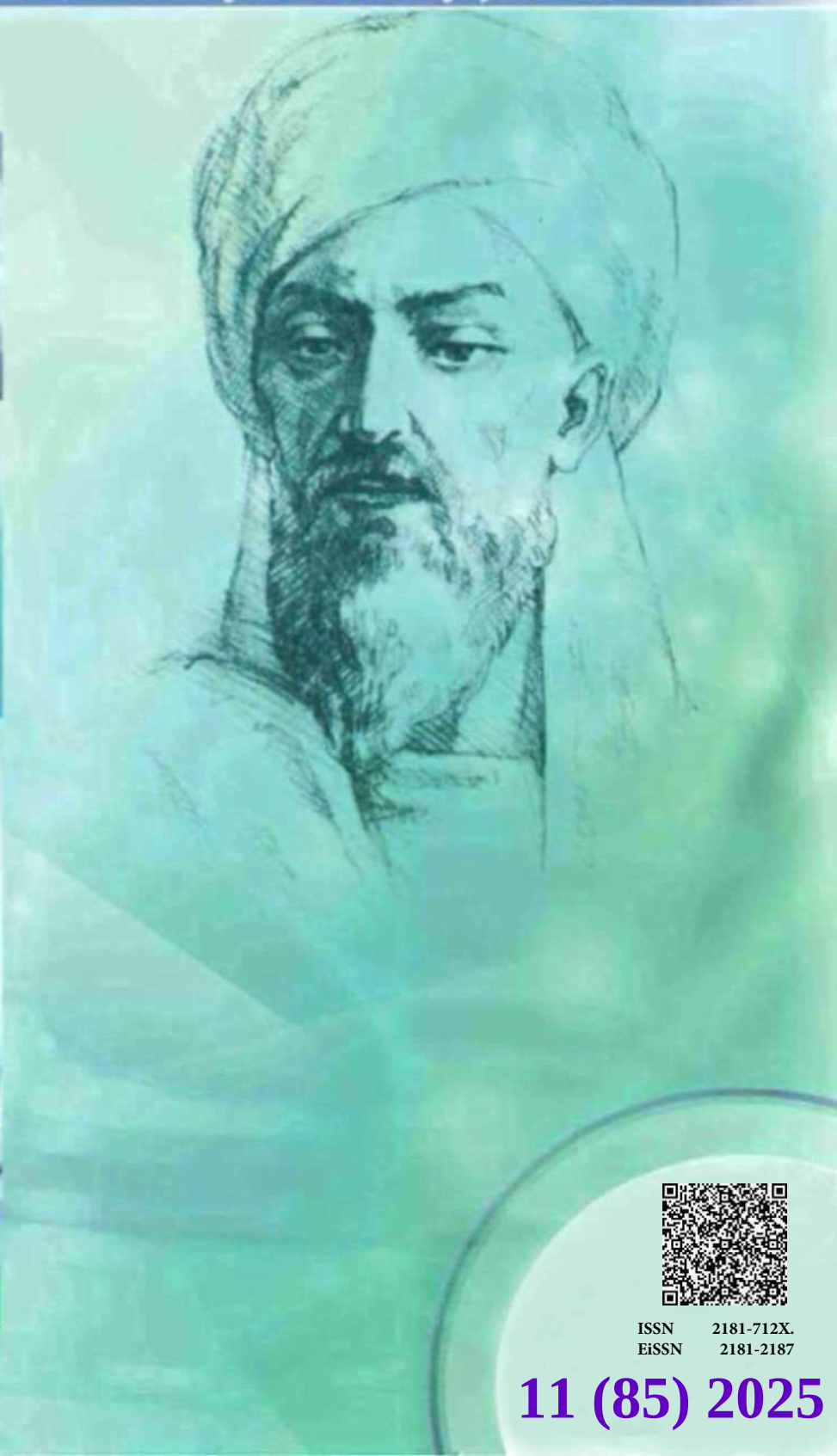


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ТИББИЁТДА ЯНГИ КУН НОВЫЙ ДЕНЬ В МЕДИЦИНЕ NEW DAY IN MEDICINE

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Научно-реферативный,
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PROBLEMS OF PREVENTION OF OCCUPATIONAL DISEASES IN POULTRY FARMS

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✓ Resume

Poultry farms and large poultry enterprises around the world are engaged in the production of edible eggs and chicken meat. In most developed countries, the health of staff is of great importance for the production of high-quality products. In case of temporary disability, the issues of disease prevention will always be relevant, since this area of medicine is aimed at maintaining the health of labor collectives. The prevention of temporary disability is especially relevant for agricultural workers, since this category of workers provides food to the population of the country. It should be noted that poultry farm workers need a wide range of harmful production factors and comprehensive protection. According to many researchers, when developing preventive programs, it is necessary to conduct examinations and treatment taking into account morbidity, temporary disability, and quality of medical care. The authors note the significant effectiveness of the use of personal protective equipment, which is important in the prevention of diseases.

Keywords: occupational diseases, temporary disability, healthcare system, prevention.

ПАРРАНДАЧИЛИК ФЕРМАЛАРИДА КАСБИЙ КАСАЛЛИКЛАРНИ ОЛДИНИ ОЛИШ МУАММОЛАРИ

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✓ Резюме

Дунё бўйича паррандачилик фермалари ва йирик паррандачилик корхоналари қутулиши мумкин бўлган тухум ишлаб чиқариш ва товуқ гўшти етиштириб бериши билан шугулланади. Кўпчилик ривожланган мамлакатларда юқори сифатли маҳсулотлар ишлаб чиқариш учун, ишчи ходимларнинг соғлиги муҳими ҳисобланади. Вақтинчалик ногиронлик билан касалликларнинг олдини олиш масалалари доимо долзарб бўлиб қолади, чунки бу тиббиёт соҳаси меҳнат жамоаларининг соғлигини сақлашга қаратилган. Вақтинчалик ногиронликнинг олдини олиш, айниқса, қишлоқ хўжалиги ишчилари учун долзарбдир, чунки ушбу тоифадаги ишчилар мамлакат аҳолисини озиқ-овқат билан таъминлайди. Шунинг билан таъкидлаш керакки, паррандачилик фермаси ишчилари кенг зарарли ишлаб чиқариш омиллари доираси ва ҳар томонлама ҳимояга муҳтож. Кўпгина тадқиқотчиларнинг фикрига кўра, профилактика дастурларини ишлаб чиқишда касаллик, вақтинчалик ногиронлик кўрсаткичларини, шунингдек тиббий сифат кўрсаткичларини ҳисобга олиган ҳолда текширувлар ва даволаш ишларини олиб бориш керак. Муаллифлар шахсий ҳимоя воситаларидан фойдаланишнинг сезиларли самарадорлигини таъкидлашади касалликларнинг олдини олишда муҳим аҳамиятга эга.

Калит сўзлар: касбий касалликлар, вақтинчалик ногиронлик, соғлиқни сақлаш тизими, профилактика.

ПРОБЛЕМЫ ПРОФИЛАКТИКИ ПРОФЕССИОНАЛЬНЫХ ЗАБОЛЕВАНИЙ НА ПТИЦЕФАБРИКАХ

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✓ Резюме

Птицефабрики и крупные птицеводческие предприятия по всему миру занимаются производством пищевых яиц и куриного мяса. В большинстве развитых стран для производства высококачественной продукции большое значение имеет здоровье персонала. При временной потере трудоспособности вопросы профилактики заболеваний всегда будут актуальны, поскольку эта область медицины направлена на поддержание здоровья трудовых коллективов. Профилактика временной нетрудоспособности особенно актуальна для работников сельского хозяйства, поскольку эта категория работников обеспечивает продовольствием население страны. Следует отметить, что работники птицефабрик нуждаются в широком спектре вредных производственных факторов и комплексной защите. По мнению многих исследователей, при разработке профилактических программ необходимо проводить обследования и лечение с учетом показателей заболеваемости, временной нетрудоспособности, а также показателей качества медицинского обслуживания. Авторы отмечают значительную эффективность использования средств индивидуальной защиты, что имеет важное значение в профилактике заболеваний.

Ключевые слова: профессиональные заболевания, временная нетрудоспособность, система здравоохранения, профилактика.

Relevance

Poultry farms and large poultry enterprises around the world are engaged in the production of edible eggs and chicken meat. The health of the workforce is an important factor in the production of high quality products in most developed countries. In the case of temporary disability, the issues of disease prevention will always be relevant, since this field of medicine is aimed at maintaining the health of labor collectives. Prevention of temporary disability is especially relevant for agricultural workers, since this category of workers provides food for the population of the country. It should be noted that poultry farm workers are in a wide range of harmful production factors and need comprehensive protection. According to many researchers, when developing preventive programs, it is necessary to conduct examinations and treatment taking into account the indicators of morbidity, temporary disability, as well as indicators of the quality of medical care. The authors note that significant efficiency of the use of personal protective equipment is important in disease prevention. Problems with the search for the most optimal structure of preventive measures in the field of health protection of agroindustrial workers have been discussed in domestic and foreign literature. According to the majority of researchers, the development and implementation of preventive measures should be included in the health protection programs of those who work on modern poultry farms. Poultry farms should take into account regional aspects of diseases leading to temporary disability, their structure and dynamics, primary qualitative and periodic medical examinations. The results of many studies confirm that one of the important steps in the prevention of diseases leading to temporary disability is preliminary and periodic medical examinations. Modern preliminary medical examinations (examinations) are carried out in order to determine at the time of employment whether the employee's state of health meets the requirements (on the basis of the Labor Code of the Republic of Uzbekistan).

Periodic medical examinations (dispenserization) are conducted for: 1) dynamic observation of health of workers, timely detection of forms of beginning occupational diseases, early signs of impact of harmful and (or) dangerous production factors on health of workers, formation of risk groups; 2) detection of general diseases, medical contraindications for continuation of this harmful and (or) dangerous work; 3) timely

carrying out of preventive and rehabilitative measures to increase the ability of employees to work, aimed at recovery and restoration of health; 3) timely carrying out of preventive and rehabilitative measures to increase the ability of employees to work, aimed at recovery and restoration of their health.

Analyzing the morbidity of poultry factory workers, many researchers note that there was no timely treatment of workers at risk of developing occupational diseases and no seasonal medical examinations of different occupational groups depending on their employment in the poultry industry. This depends on the quality of primary preventive measures and timely organization of periodic medical examinations. A number of authors believe that based on the results of surveys of risk groups and their immediate medical examination, timely detection of workers with symptoms of diseases is also achieved with adequate treatment measures.

Rehabilitation of poultry workers, having medical and social importance, on the basis of continuity consists in medical supervision according to the principles of stage-by-stage and provision of primary specialized medical care.

Labor conditions at poultry farms, undoubtedly, have a pronounced negative impact on the health of workers, which is manifested not only in all.

A high level of certain diseases is formed, as well as some peculiarities of their manifestation.

Studies also show that the prevalence of temporary disability increases with the increase in the number of poultry farm workers. In case of occupational diseases associated with work in harmful and hazardous conditions, it will be necessary to organize medical examinations in occupational pathology centers that have been operating for more than 5 years.

Studies have shown that at poultry farms harmful factors are more often detected in women than in men, and elderly workers more often than young workers. Workers should consider these factors when determining their health status.

It should be noted that poultry workers are the most vulnerable occupational group in terms of the risk of respiratory diseases. Studies cited in the literature indicate that the structure of respiratory diseases often includes exacerbation of acute respiratory diseases as acute bronchitis, pneumonia, chronic bronchitis. Poultry farm workers come into contact with protein-vitamin concentrates, which are finely dispersed antigens. This determines their ability to penetrate into the respiratory organs to a considerable depth and cause appropriate reactions directly in the lung tissue itself. According to domestic and foreign studies, up to 25% of workers of modern poultry farms suffer from one or another nosological form of respiratory diseases associated with working conditions.

Numerous studies have shown that production dust of plant and animal origin at poultry farms is potentially hazardous to the health of its employees, is a clear allergen, and increases the likelihood of diseases, their development and unfavorable outcome.

In this case, exposure to inhaled dust particles that penetrate deep into the respiratory tract for 8 hours at a concentration of more than 4 mg/m³ is especially dangerous. This leads to a violation of the normal mechanism of lung cleansing, i.e. to a violation of cleansing from pathogenic particles, which in turn can lead to dystrophic and allergic diseases of the upper and lower respiratory tracts. When studying respiratory diseases in workers of modern poultry farms it was found that pathology of the upper respiratory tract is often observed in workers of the main workshops, where the highest concentration of dust in the air of the workplace is fixed. M.T. Guillam et al. (2013) noted that among people working on the main production of poultry farm the frequency of pathological changes of the upper respiratory tract is almost 3 times higher than in representatives of other groups. Further research is important to study the development of allergic respiratory diseases on the background of disorders of the immune system and oxidative-antioxidant system. According to the results of the study, the frequency of adverse effects of poultry meat on the body of poultry farmers increases with the age of the study population. Thus, the highest rate of respiratory diseases was found in workers aged 45-54 years. The researchers also note that the identified disorders of bronchial apparatus functioning are closely related to the time of work and are most pronounced in workers with work experience of 6-9 and more than 15 years. N.V. Boytsova (2004) found that catarrhal and allergic changes are most often observed at professional experience up to 5 years, while sub- and atrophic processes prevail after 10 years of work.

The leading criterion of organic dust harmfulness is its immunotropic effect on the organism. When studying the properties of immune response in workers exposed to industrial dust, a reliable decrease in the relative content of CD-3 cells in the peripheral blood, a simultaneous decrease in the functional activity with a deficiency of CD-4 and CD-8 cells was determined. Stress in the protective killer function of T-lymphocytes, as well as in the lymphocytes themselves was established.

It has been established that the formation of a complex of professionally determined respiratory symptoms in poultry farmers is accompanied by the development of secondary immunodeficiency in the body's own and nonspecific defense system. E. Martin and co-authors (2013) note that different amounts of proteins in organic dust represent the greatest risk as exogenous heteroantigens because they can affect the immune system and cause allergic reactions. The works of domestic authors present data on unfavorable production factors that negatively affect the immunobiological reactivity of the organism of workers, manifested by suppression of cells and activation of humoral and cytokine links of immunity.

The result of irritation or toxic damage to the respiratory tract by high molecular weight compounds in poultry farmers is bronchial asthma. The high molecular weight compounds that cause immunologic bronchial asthma contain proteins of animal origin. Bronchial asthma caused by contact with high molecular weight compounds is accompanied by allergic rhinitis in 57.3% of cases and allergic dermatitis in 16.6% of cases.

Studies by many authors have shown that poultry farm workers are more susceptible to the development of allergic alveolitis. According to the results of the study of morbidity of workers of industrial poultry farms in Bukhara region it was found that exogenous allergic alveolitis develops in 5.2% of workers and is more pronounced in poultry farmers, whose production activity is intensive and associated with poultry farming. People of this category, having long-term contact with industrial dust, include poultry operators, mechanizers, poultry farmers, laborers and a number of other workers of poultry farms. The risk group for the development of exogenous allergic alveolitis was 37.8% of all examined poultry.

Some researchers claim that the main place among otitis media is occupied by ENT pathology: atrophic nasopharyngolaryngitis, allergic rhinitis, rhinosinusopathy. The researchers claim that the microbiota of the air environment at production facilities can also play an important role in the development of ENT pathology and the formation of specific microbiocenoses of mucous membranes of the upper respiratory tract in poultry workers. A study of the influence of social and environmental factors on the female health of women working in poultry farms found that the microbiota of the mucous membranes of the nose, vagina and skin is the same as the microbial air pollution of industrial buildings.

Constant irritation of the eyes by organic dust, increased ammonia vapors, sulfur compounds and other substances in the air in production, inadequate cleaning of the conjunctival cavity and frequent dust penetration contribute to the development of ophthalmopathology.

Allergic diseases were diagnosed in 52% of poultry farmers. Among them, patients with allergic rhinoconjunctivitis are the most frequent.

Experts also note that due to the high concentration of poultry meat in a limited area, microbiological air pollution in the production areas of poultry buildings is of particular importance as a risk factor for various infectious diseases and organism sensitivity to toxicotoxicity. It is established that infectious and parasitic diseases are similar to the infection with which poultry farm workers came into contact during working hours. Contact with poultry is known to be a common risk factor for campylobacteriosis. The results of a promising study on the transmission of campylobacter from chickens to humans during the slaughter of poultry showed that infection is rare. Other zoonotic diseases, particularly the development of H7 infection, indicate a dependence on various factors in the work environment.

Since the 1990s. Influenza A subtype H9N2 viruses have caused infection in avian populations worldwide. Researchers have noted the need to continuously monitor circulating influenza viruses in poultry farms and detect changes in the H9N2 virus. Researchers are also concerned that poultry farmers are at a higher risk of contracting bird flu because of their frequent contact with chickens. Experts say the problem is particularly acute in Southeast Asian countries. Thus, R. Huang and co-authors (2013) presented the results of a study conducted in China from 2011 to 2012. According to the results of the study, antibodies to avian influenza H9N2 virus were detected in 2-3% of poultry farmers.

However, according to A. Soman and co-authors (2013), S. Nasreen and co-authors (2015), H9N2 virus can spread among poultry but is rarely transmitted to humans. X.Huo et al. (2012) also noted the low prevalence of H5N1 avian influenza virus among poultry farmers.

According to the researchers, many problems associated with the spread of this infectious disease are still poorly understood and require further research.

Obviously, the health of working people is also affected by the physical activity associated with agricultural work. Lifting and lowering heavy objects, frequent and/or prolonged bending, forced body posture - all these contribute to increased pressure in the abdomen and the development of gastroesophageal reflux disease. The nature of working conditions is an important factor in the development of diseases of the digestive system. However, in addition, nutrition and its quality play an important role in the development of gastrointestinal diseases.

A study has shown that night shift workers have irrational work and rest schedules compared to day shift workers. It appears that those who work the night shift are overweight. According to the authors, further research is needed to understand the biological mechanisms involved in the complex systems of shift behavior and social adaptation faced by night workers.

Some poultry farm workers report cardiovascular pathology characterized by varying degrees of hypertension, autonomic dysfunction, often of the hypertensive type, and myocardial dystrophy. Researchers claim that these diseases in some cases lead to permanent disability and disablement.

Currently, there remains an important component of physical labor in the poultry industry. Many researchers note that diseases of the musculoskeletal system in poultry farm workers in most cases are professionally identified and are explained by the peculiarities of the organization of work at poultry farms.

Thus, when studying the disease of poultry farm workers, a poultry farm operator noted that some technological operations (feeding, cleaning feeders, collecting eggs) are performed in a mandatory half-bent position with a high load on the upper and lower limbs, muscles and lumbosacral spine, back. Poultry farmers bend their torso more than 100 times per shift, spending up to 50% of their working time in an uncomfortable position; from 60 to 80% of the shift time they spend in an upright position. The authors note that due to functional overstrain in workers there is a possible occupational risk of musculoskeletal pathology.

The scientists concluded that an important group of factors that determine the severity of labor at work are factors associated with ergonomic deficiencies. Workplaces often do not meet anthropometric characteristics. Structural deficiencies of workplaces create uncomfortable, physiologically irrational working conditions. Almost all of foreign and domestic researchers, indicate the presence of men engaged in heavy physical labor, injuries of intervertebral discs of the thoracic, lumbar and sacral regions, osteochondrosis of the spine and dorsalgia. In the course of production at poultry farms, women often perform work that places heavy loads on the joints of the upper and lower extremities, resulting in the development of polyarthrosis, gonarthrosis and coxarthrosis.

Conclusion

In conclusion, we note that at modern poultry farms workers are exposed to a number of unfavorable production factors, which are risk factors for their health in the process of production activity. The impact of harmful factors on the workers' organism is mainly combinatory and complex, in some cases the joint action of harmful substances can cause strengthening and modifying effects. The data of many studies have confirmed that working people have the highest mortality rate from contact with plant and animal dust, so it is considered necessary for this contingent of workers to undergo medical examinations every 12 months. To improve working conditions at poultry farms it is necessary to improve technological processes by replacing machines and equipment with increased wear and tear, to conduct more modern technological processes in accordance with sanitary and hygienic requirements.

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