кишківника мають еластичні властивості. Недиференційована ДСТ (НДСТ) діагностується, якщо набір фенотипічних симптомів у пацієнта не відповідає жодному з диференційованих захворювань. Частота виявлення НДСТ серед молоді досягає 80%. Висока поширеність синдрому НДСТ (66,9%) визначається у хворих з функціональними захворюваннями жовчних шляхів, що впливає на клінічні прояви цих захворювань. Пацієнти з тяжким НДСТ проявляють найбільшу частоту моторних порушень жовчних шляхів, а також астенічний синдром і вегетативну дисфункцію. Крім того, при синдромі НДСТ у хворих з функціональними порушеннями серцево-судинної системи функціональні розлади біліарного тракту спостерігаються в 43% випадків. Таким чином, висока поширеність синдрому НДСТ свідчить про необхідність раннього виявлення ознак дисплазії сполучної тканини у молодих людей з метою своєчасного виконання комплексу профілактичних і лікувальних заходів.

Ключові слова: синдром недиференційованої дисплазії сполучної тканини, функціональний стан біліарної та серцево-судинної системи, діагностика, молодий вік.

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кишечника имеют эластичные свойства. Недифференцированная ДСТ (НДСТ) диагностируется, если набор фенотипических симптомов у пациента не соответствует ни одному из дифференцированных заболеваний. Частота выявления НДСТ среди молодежи достигает 80%. Высокая распространенность синдрома НДСТ (66,9%) определяется у больных с функциональными заболеваниями желчных путей, влияет на клинические проявления этих заболеваний. Пациенты с тяжелым НДСТ проявляют наибольшую частоту моторных нарушений желчных путей, а также астенический синдром и вегетативную дисфункцию. Кроме того, при синдроме НДСТ у больных с функциональными нарушениями сердечно-сосудистой системы функциональные расстройства билиарного тракта наблюдаются в 43% случаев. Таким образом, высокая распространенность синдрома НДСТ свидетельствует о необходимости раннего выявления признаков дисплазии соединительной ткани у молодых людей с целью своевременного выполнения комплекса профилактических и лечебных мероприятий.

Ключевые слова: синдром недифференцированной дисплазии соединительной ткани, функциональное состояние билиарной и сердечно-сосудистой системы, диагностика, молодой возраст.

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ANALYSIS OF MORBIDITY WITH TEMPORARY DISABILITY AMONG WORKERS IN THE MINING AND PROCESSING OF IRON ORE

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The purpose of this study was to study the level and structure of morbidity with temporary disability among workers engaged in the extraction and processing of iron ore in the mining and metallurgical complex of Ukraine. Among workers in the mining and processing of iron ore level STP is of 81,87±3,64 to 98,06±2,49 cases, from 806,53±40,51 to 1217,67±63,5 disability days, and in accordance with the scale of assessment of indicators of morbidity for L. E. Notkin characterized by day, as an average, on occasions, as high. In the structure diseases of workers employed in the mining and processing of iron ore in the first place are diseases of the respiratory system, the second place is occupied by diseases of musculoskeletal system and connective tissue, in third place − injury and poisoning. At the enterprise of ferrous metallurgy for research period the level of morbidity with temporary disability was 106,15±4,34 cases and 1388,62±70,9 days of disability per 100 employees, that according to the scale of assessment of morbidity with temporary disability rates by L. E. Notkin characterized as above average and high, respectively. In the structure of morbidity the largest specific weight has respiratory diseases, injuries, diseases of the musculoskeletal system. Studies show the need to establish dynamic supervision, monitoring of health status of each individual employee for the purpose of timely detection of early manifestations of occupational disease and mandatory rehabilitation treatment for the purpose of preservation of working capacity of the worker in his profession, prospects for further research aimed at the development and implementation of preventive measures.

Key words: labor conditions, morbidity, extraction and processing of iron ore, mining and metallurgical complex.

The work is a fragment of the research project "Management of the risk of developing the most common occupational diseases among workers of the mining and metallurgical industry of Ukraine", state registration No. 0119U001334.

The health of an employee should be considered as an indispensable condition that directly affects the production process and the quality of the manufactured product: «a sick worker can not produce qualitative goods», and ensuring the health of such an employee is the most important function of not only the state but also the employer, it is the basis of social policy, which in practice is realized by creating safe working conditions and healthy living conditions [6].

Creation and development of a system of occupational medicine at an industrial enterprise contributes to strengthening and maintaining the highest degree of physical, mental and social well-being of workers in all spheres, prevention of working deviations in health condition, which caused by working conditions, protection of workers from risks, caused by harmful production factors, placement and

preservation of workers in the production environment, what adapted to their physiological and psychological abilities, adaptation of work to the workers and everyone working to his or her work (WHO, ILO, 1995) [6, 3].

The assessment and management of occupational risks has the purpose conducting of analysis and assessing the health of workers by timely, complete and adequate passing of the previous and periodic medical examination, registration and analysis of morbidity and establishment of cause-and-effect relationship with working conditions, informing about the risk of the subject of labor law, and the management of occupational risks by improving working conditions, reducing exposure, dose rates, and also "time protection" [1, 6−9]. When assessing risk, great attention is given to the quantitative assessment of losses from risk for select the most effective management measures, which are prevention, what in last years, is a priority of research and development in occupational medicine [2, 8].

An important prerequisite for the development and implementation of prophylactic measures which are aimed to improving the health of workers and increasing of labor productivity is the establishment of an objective connection between the morbidity of workers and sanitary and hygienic working conditions, which is based on an understanding of the causes which influencing the morbidity, and on reliable evidence of the impact on the morbidity not only of biological, family and domestic, medical and preventive factors, but also of industrial and professional [7].

The frequency of cases of temporary disability in diseases is of paramount importance, due to the fact that the change in the frequency of cases is evidence of the impact of working conditions on the health of workers [7].

Reducing morbidity with temporary disability has not only social but also economic value, as it promotes the preservation of a significant number of workers in the production sector.

At present, this problem is incredibly relevant, which is related to the demographic situation in the country, as a result of which the restoration of labor resources is decreasing. However, to adequately address the issues of health of workers and the development of health measures, which aimed at reducing morbidity, it is necessary to understand the reasons, that support its high level, and reliable evidence of the impact on it of certain factors, first of all production - professional, neutralizing or mitigating the action of which is most realistic [7].

Thus, the results that can be obtained during the analysis of the morbidity with temporary disability of workers of the abovementioned professions can be considered as the initial data and will allow to set up dynamic monitoring, monitoring of the health status of each particular worker in order to timely identify the initial manifestations of occupational disease and obligatory conduct of restorative treatment in order to maintain the worker's ability to work in his profession.

The purpose of the work was to study the level and structure of morbidity with temporary disability among workers engaged in the extraction and processing of iron ore in the mining and metallurgical industry of Ukraine.

Materials and methods. Hygienic, epidemiological and statistical methods of research were used to solve this purpose. The study of morbidity with temporary disability was carried out in the analysis of disability sheets and a report about the causes of temporary disability. To obtain more reliable data, temporary disability was studied over the last 5 years (2010–2014) in «year-round» workers (28970 people) of underground, open mining of iron ore and metallurgical production with a work experience of 3 years or more, that is, basically adapted to conditions of production, and in workers of the control group (2090 people). The analysis of indicators of morbidity with temporary disability is conducted taking into account cases and days of disability for 100 employees on average over the last 5 years, as well as for nosological forms according to the «International statistical classification of diseases, injuries and causes of death of X revision». The level of morbidity with temporary disability was estimated in accordance with the scale of assessment of morbidity rates by L. E. Notkin.

Material handling was performed using the standard Microsoft Office Excel program package. The obtained data had a normal law of probability distribution, and, for their analysis, mainly, parametric criteria of Student and Fisher were used. The number of observations was sufficient to obtain unmatched estimates of the first two points: the arithmetic mean (M) and the mean square deviation (δ). In order to compare the mean values of the quantitative indices, in the normal distribution of the sign used t-criterion of Student. The significance level was considered reliable $p < 0.05$ with reliability of 95 %.

Results of the study and their discussion. During the analysis of morbidity with temporary disability for workers of the mining and metallurgical complex it was established that the number of workers occupied by underground mining of iron ore the level of morbidity with temporary disability is 81.87±3.64 cases ($p<0.05$). 806.53±40.51 days of disability ($p<0.05$), the average duration of one case is

10,00±1,42, which is in 1,39 times higher than in cases and in 1.29 times than in days of disability than in workers of the control group and according to the scale of assessment of morbidity rates by L. E. Notkin characterized in days as average; in cases as high (table 1).

Table 1

The level of morbidity with temporary disability in the workers of the mining and metallurgical complex per 100 employees (p<0.05).

Production	Cases	Days	Average case duration
Underground mining of iron ore	81.87±3.64*	806.53±40.51*	10.00±1.42
Open mining iron ore	98.06±2.49*	1217.67±63.50*	12.39±0.24
Control group	59.84±1.48	624.23±17.43	10.40±1.06
Metallurgical production	106.15±2.22*	1388.62±36.18*	13.08±0.11
Control group	70,4±5,52	874,89±93,8	12,4±0,44

Note. * – the difference is significant with the control group.

For employees engaged in open mining of iron ore the level of morbidity with temporary disability is 98.06±2.49 cases (p<0.05). 1217.67±63.50 days of disability (p<0.05). the average duration of one case is 12,39±0,24, which is in 1,64 times higher than in cases and in 1.95 times than in days of disability than in workers of the control group and according to the scale of assessment of morbidity rates by L. E. Notkin characterized in days as average; in cases as high.

In general, among the workers of metallurgical production the level of morbidity with temporary disability is 106.15±2.22 cases (p <0.05). 1388.6±36.18 days of disability (p <0.05), which is 1,5 times higher than in cases and 1.6 times than in days of disability than among workers of the control group and according to the scale of assessment of morbidity rates by L. E. Notkin characterized in cases as above average; in days as high. The average duration of one case for the workers of metallurgical production is 13.08±0.11. Level of morbidity among workers of the control group by number of cases (70.4±5.52) and days of disability (874.88±93.8) below average and average respectively, the duration of one case was 12.4±0.44 days (Tab. 2).

Table 2

Evaluated level of morbidity with temporary disability in workers of metallurgical production and in the control group per 100 workers (p<0.05)

Shop	Number of cases of disability per 100 workers			M±m	Evaluation of morbidity with temporary disability according to the Notkin scale
	2012	2013	2014		
Open-hearth furnace shop	124.5	123.46	116.2	121.39±2.61 *	High
Sinter shop	107.45	101.02	104.83	104.43±1.87 *	Above average
Mechanical shop	118.2	96.77	91.86	102.28±8.09 *	Above average
blast-furnace shop	80.22	86.74	84.65	83.87±1.92 *	Average
Control	81.32	66.31	63.56	70.4±5.52	Below average
Shop	The number of days of disability per 100 workers			M±m	Evaluation of morbidity with temporary disability on the Notkin scale
	2012	2013	2014		
Open-hearth furnace shop	1536.33	1413.77	1422.57	1457.56±39.5 *	High
Sinter shop	1230.05	1208.12	1237.53	1225.23±8.82 *	High
Mechanical shop	1416.08	1189.41	1074.67	1226.7±100.3 *	High
blast-furnace shop	1002.77	1072.33	1050.85	1041.98±20.56	Above average
Control	1062.17	790.05	772.38	874.87±93.8	Average

During the analysis of the morbidity structure with temporary disability at underground extraction of iron ore as a whole, in cases of 100 workers, it was found that the first place occupy diseases of the respiratory system (56.83 %) 46.53±5.08 cases (p<0.05), the second place is occupied by diseases of the musculoskeletal system and connective tissue (9.73 %) 7.97±0.98, the third place – injury, poisoning and some other effects of external factors (8.25 %) 6.76±0.80 (p<0.05), the fourth place are skin and subcutaneous tissue diseases (5.41 %) 4.43±1.51 (p<0.05), the fifth ranked place in the structure of morbidity with temporary disability occupy diseases of the digestive system (5.1 %) 4.16±0.33 (p<0.05). the sixth place belongs to diseases of the nervous system (3.63 %) 2.97±0.42 (p<0.05), the seventh place occupy diseases of the blood circulation system (3.54 %) 2.90±0.14, the eighth place is located diseases of the genitourinary system (2.44 %) 2.00±0.21 (p<0.05). Other diseases (6.89 %) occupy not a significant place in the morbidity structure with temporary disability in cases of 100 employees (table 3).

Table 3

Level of morbidity with temporary disability in workers which are occupied by the underground mining of iron ore per 100 employees (p<0.05)

Nosological forms	Underground mining of iron ore		
	Cases	Days	Average case duration
some infectious and parasitic diseases (A00-B99)	1.36±0.11*	38.50±5.89	28.73±6.51
neoplasm (C00-D48)	0.70±0.12*	18.27±6.67	14.33±8.91
blood diseases and hematopoietic organs and individual violations involving the immune mechanism (D50-D89)	0.10±0.02	2.00±0.21	20.00±1.65
endocrine diseases, disorders nutrition and metabolism (E00-E90)	0.16±0.04	3.00±0.21	1.33±0.22*
mental and behavioral disorders (F00-F99)	1.33±0.21	24.40±9.11	17.40±4.80
diseases of the nervous system (G00-G99)	2.97±0.42	32.10±6.40	11.13±2.49
eye diseases and adjuvant apparatus (H00-H59)	-	-	-
ear disease and dusky appendix (H60-H95)	-	-	-
circulatory system diseases (I00-I99)	2.90±0.14	53.97±11.59	18.47±3.48
diseases of the respiratory system (J00-J99)	46.53±5.08*	266.80±2.66	5.80±0.62*
diseases of the digestive system (K00-K93)	4.16±0.33	76.16±7.31	18.40±2.10*
skin disease and subcutaneous tissue (L00-L99)	4.43±1.51	33.06±6.65	8.07±1.58
diseases of the bone and muscle systems and connective tissue (M00-M99)	7.97±0.98	94.96±24.55	11.60±1.89
diseases of the genitourinary system (N00-N99)	2.00±0.21	28.97±4.43	14.57±2.05
pregnancy, childbirth and postpartum period (O00-O99)	0.33±0.04	4.70±0.36	14.33±2.01
injuries, poisoning and some other effects of external factors (S00-S99)	6.76±0.80*	138.83±20.15*	20.43±1.21
other reasons temporary disability	0.05±0.01	0.50±0.05	10.00±0.36*
together all of the above diseases	81.87±3.64*	806.53±40.51*	10.00±1.42

Note. * – the difference is significant with the control group.

In workers engaged in open mining of iron ore, morbidity with temporary disability has the following picture: the first place occupy diseases of the respiratory system (58.83 %) 57.69±1.07 cases (p<0.05), the second place is occupied by diseases of the musculoskeletal system and connective tissue (10.91 %) 10.70±0.94 cases, the third place-injury, poisoning and some other effects of external factors (8.69 %) 8.52±0.10 cases (p<0.05), the fourth place occupy diseases of the digestive system (4.97 %) 4.87±0.19 cases (p<0.05), the fifth place is occupied by circulatory system diseases (4.28 %) 4.20±0.20 cases (p<0.05) (table 4).

Table 4

Level of morbidity with temporary disability in workers which are occupied in open mining of iron ore per 100 employees (p<0.05)

Nosological forms	Underground mining of iron ore		
	Cases	Days	Average case duration
some infectious and parasitic diseases (A00-B99)	1.16±0.07*	17.91±1.17*	15.42±0.07*
neoplasm (C00-D48)	0.33±0.01*	8.40±0.56	25.38±2.28*
blood diseases and hematopoietic organs and individual violations involving the immune mechanism (D50-D89)	0.03±0.01	0.59±0.12	19.72±1.85
endocrine diseases, disorders nutrition and metabolism (E00-E90)	0.11±0.05	1.67±0.90	14.56±10.07
mental and behavioral disorders (F00-F99)	0.06±0.01*	0.83±0.22*	13.32±1.42
diseases of the nervous system (G00-G99)	0.46±0.01	9.16±0.51*	19.80±0.86
eye diseases and adjuvant apparatus (H00-H59)	0.76±0.29	7.99±2.09	10.90±0.24
ear disease and dusky appendix (H60-H95)	0.90±0.13	8.34±0.57	8.34±2.67
circulatory system diseases (I00-I99)	4.20±0.20	68.22±0.50*	15.88±0.44
diseases of the respiratory system (J00-J99)	57.69±1.07*	503.06±11.17*	8.71±0.01
diseases of the digestive system (K00-K93)	4.87±0.19*	61.17±1.39	12.68±0.32
skin disease and subcutaneous tissue (L00-L99)	2.47±0.13	26.14±1.15	10.50±0.24
diseases of the bone and muscle systems and connective tissue (M00-M99)	10.70±0.94	138.52±12.21*	13.26±0.22
diseases of the genitourinary system (N00-N99)	1.34±0.31	15.23±3.05*	11.40±1.10*
pregnancy, childbirth and postpartum period (O00-O99)	0.69±0.07*	13.41±5.97	19.58±2.01
injuries, poisoning and some other effects of external factors (S00-S99)	8.52±0.10*	214.98±7.91*	25.30±1.22
other reasons temporary disability	4.13±1.08*	121.77±19.86*	29.58±0.69*
together all of the above diseases	98.06±2.49*	1217.67±63.50*	12.39±0.24

Notes. * – the difference is significant with the control group.

In the structure of morbidity of workers of metallurgical production by the number of cases and days of disability per 100 workers in the top five diseases include diseases of the respiratory system (45.9%) 48.68±1.1 cases and 421.8±12.11 days, case duration 8.66±0.17 days; injury and poisoning (11.6%) 12.33±0.27 cases and 259.49±4.2 days, case duration 21.06±0.51 days; diseases of the musculoskeletal system and connective tissue (9.7%) 10.28±0.36 cases and 142.46±6.2 days, case duration 13.85±0.3 days; diseases of the circulatory system (7.0%) 7.43±0.35 cases and 121.9±6.9 days, case duration 16.4±0.62 days; diseases of the digestive system (6.5%) 6.85±0.35 cases and .113.89±6.68 days, case duration 16.61±0.31 days.

Among the workers of control group, morbidity with temporary disability has the following structure: the first place occupy diseases of the respiratory system (47.6 %) 20.65±10.0 cases, the second place is occupied by diseases of the circulatory system (14.0 %) 6.26±3.55cases, the third place occupy diseases of the musculoskeletal system and connective tissue (8.61 %) 3.85±2.06 cases, the fourth place – injury, poisoning and some other effects of external factors (8,2 %) 3.66±0,39 cases, the fifth place occupy diseases of the digestive system (7,45 %) 3,23±1,54 cases.

The results of the research showed that among workers in the mining and processing of iron ore level STP is of 81.87±3.64 to 98.06±2.49 cases, from 806.53±40.51 to 1217.67±63.5 disability days, and in accordance with the scale of assessment of indicators of morbidity for L. E. Notkin characterized by day, as an average, on occasions, as high.

It was established that in the structure of diseases of workers involved in the extraction and processing of iron ore, in the first place are diseases of the respiratory system, in the second place – diseases of the musculoskeletal system and connective tissue, in the third place – injuries and poisoning, coinciding with the research of such scholars such as Nahorna A. M. [3], Varyvonchyk D. V. [4], Sorokin G. A. [6]. Obtaining data emphasizes that about 70 % of the working population have a serious somatic pathology for 10 years before retirement age.

In the structure diseases of workers employed in the mining and processing of iron ore in the first place are diseases of the respiratory system, the second place is occupied by diseases of musculoskeletal system and connective tissue, in third place − injury and poisoning, which is in agreement with the data of other researchers, who emphasize that about 70 % of the working population have a serious somatic pathology for 10 years before the retirement age [3, 5, 7].

At the enterprise of ferrous metallurgy for research period the level of morbidity with temporary disability was 106.15±4.34 cases and 1388.62±70.9 days of disability per 100 employees, that according to the scale of assessment of morbidity with temporary disability rates by L. E. Notkin characterized as above average and high, respectively.

It is determined that respiratory diseases, injuries, diseases of the musculoskeletal system occupy the largest share in the structure of the disease, which is also confirmed by previous studies Grimani A., Shlyapnikov D. M., Bukhtiyarov I. V. and other scientists [2, 4, 8].

In the structure of morbidity the largest specific weight has respiratory diseases, injuries, diseases of the musculoskeletal system, as confirmed by previous studies [2, 4, 8].

In the structure of morbidity of workers of metallurgical production by the number of cases and days of disability per 100 workers in the top five diseases include diseases of the respiratory system (45.9%) 48.68±1.1 cases and 421.8±12.11 days, case duration 8.66±0.17 days; injury and poisoning (11.6%) 12.33±0.27 cases and 259.49±4.2 days, case duration 21.06±0.51 days; diseases of the musculoskeletal system and connective tissue (9,7%) 10.28±0.36 cases and 142.46±6.2 days, case duration 13.85±0.3 days; diseases of the circulatory system (7.0%) 7.43±0.35 cases and 121.9±6.9 days, case duration 16.4±0.62 days; diseases of the digestive system (6.5%) 6.85±0.35 cases and 113.89±6.68 days, case duration 16.61±0.31 days.

The effect of production factors on the health of workers is reflected in the indicators of morbidity with temporary disability and the prevalence of chronic somatic pathology, and in the distant period - in occupational morbidity, which opens the prospects for further research into the establishment of cause-and-effect relationship with working conditions and development and introduction of an effective system of professional risk management to reduce morbidity, improve the quality of life and preserve the country's labor potential.

Conclusions

1. In the workers involved in the extraction and processing of iron ore the level of morbidity with temporary disability is from 81.87±3.64 to 126.44±3.80 cases ($p<0.05$), from 806.53±40.51 to 1434.04±25.77 days of disability ($p<0.05$), the average duration of one case was from 10.00±1.42 to

12.39±0.24, and according to the scale of assessment of the indicators of morbidity rates by L. E. Notkin characterized in days as average; in cases as high.

2. In the structure of morbidity with temporary disability of the workers involved in the extraction and processing of iron ore diseases of the respiratory system occupy the first place (55.57–58.83 %), the second place is occupied by diseases of the musculoskeletal system and connective tissue (9.73–10.61 %), the third place belongs to injuries, poisoning and some other effects of external factors (8.25–8.72 %).

3. The level of morbidity with temporary disability at the metallurgical combine is above the average (1388.62±70.9) by the number of cases and high (106.15±4.34) by the number of days per 100 workers (according to the Notkin scale), the average duration of one case is13.08±0.21 days. First places in the structure of morbidity with temporary disability by number of cases and days of disability occupy the diseases of the respiratory system, injury and poisoning, diseases of musculoskeletal system and connective tissue, diseases of the circulatory system and diseases of the digestive system. Indices of morbidity with temporary disability of workers Open-hearth furnace shop, Sinter shop, Mechanical shop and BF shop significantly higher ($p < 0.05$) than in workers of the control group.

4. The performed studies confirms the necessity of establishing dynamic supervision, monitoring of the health of workers in order to timely identify the initial manifestations of occupational diseases and the obligatory introduction of preventive measures in order to maintain the worker's ability to work in his profession.

Prospects for further research lie in the fact that the results, can be considered as initial data to calculate occupational risks, which will permit to establish dynamic supervision and monitoring of the health status in order to maintain the worker's ability to work in his profession. In future, the results are planned to be used for determining both the group and individual safe working terms, criteria for early diagnosis of initial manifestations of diseases, and to define the list of job- associated diseases in these professional groups.

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Реферати

АНАЛІЗ ЗАХВОРЮВАНОСТІ З ТИМЧАСОВОЮ ВТРАТОЮ ПРАЦЕЗДАТНОСТІ У ПРАЦІВНИКІВ, ЩО ЗАЙНЯТІ ВИДОБУТКОМ ТА ПЕРЕРОБКОЮ ЗАЛІЗНОЇ РУДИ

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Метою данного дослідженння було вивчити рівень та структуру захворюваності з тимчасовою втратою працездатності серед працівників, що зайняті видобуванням та переробкою залізної руди в гірничо-металургійному комплексі України. У структурі захворюваності з тимчасовою втратою працездатності працівників, задіяних у видобутку та переробці залізної руди, на першому місці знаходяться захворювання органів дихання (55,57–58,83%), на другому місці – хвороби опорно-рухового апарату та сполучної тканини (9,73–10,61%), на третьому місці – травми, отруєння та деякі інші ефекти зовнішніх факторів. Рівень захворюваності з тимчасовою втратою працездатності на металургійному

АНАЛИЗ ЗАБОЛЕВАЕМОСТИ С ВРЕМЕННОЙ УТРАТОЙ ТРУДОСПОСОБНОСТИ У РАБОЧИХ, ЗАНЯТЫХ ДОБЫЧЕЙ И ПЕРЕРАБОТКОЙ ЖЕЛЕЗНОЙ РУДЫ

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Целью данного исследования было изучить уровень и структуру заболеваний с временной утратой трудоспособности среди работников, занятых добычей и переработкой железной руды в гороно-металлургическом комплексе Украины. В структуре заболеваний с временной утратой трудоспособности работников, занятых добычей и переработкой железной руды, на первом месте находятся болезни органов дыхания, на втором месте − болезни костно-мышечной системы и соединительной ткани, на третьем месте − травмы, отравления и некоторые другие эффекты внешних факторов. Уровень заболеваемости с временной утратой трудоспособности составил 106,15±4,34 случаев и

комбінаті перевищує середнє (1388,62±70,9) за кількістю випадків і високим (106,15±4,34) за кількістю днів непрацездатності на 100 робітників за шкалою Л.Є. Боткіна характеризується як вищий за середній та високий відповідно. В структурі захворюваності найбільшу питому вагу мають захворювання органів дихання, травми, захворювання кістково-м'язової системи. Проведені дослідження доводять необхідність встановлення динамічного нагляду, моніторингу за станом здоров'я кожного конкретного працівника з метою своєчасного виявлення початкових проявів професійного захворювання та обов'язкового проведення відновлювального лікування з метою збереження працездатності працівника у своїй професії, що відкриває перспективи для подальших наукових досліджень, спрямованих на розроблення та впровадження профілактичних заходів.

Ключові слова: умови праці, захворюваність, видобування та переробка залізної руди, гірничо-металургійний комплекс.

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1388,62±70,9 дней нетрудоспособности на 100 работающих, который по шкале Л. Е. Ноткина характеризуется как выше среднего и высокий соответственно. В структуре заболеваемости наибольший удельный вес имеют болезни органов дыхания, травмы, болезни костно-мышечной системы. Проведенные исследования доказывают необходимость установления динамического надзора, мониторинга за состоянием здоровья каждого конкретного работника с целью своевременного выявления начальных проявлений профессионального заболевания и обязательного проведения восстановительного лечения с целью сохранения трудоспособности работника в своей профессии, что открывает перспективы для дальнейших научных исследований, направленных на разработку и внедрение профилактических мероприятий.

Ключевые слова: условия труда, заболеваемость, добыча и переработка железной руды, горно-металлургический комплекс.

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FOCUS ON SLEEP PROBLEMS IN PATIENTS WITH SOMATOFORM DISORDERS

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One of the most important non-specific symptoms of the somatoform disorders is sleep disturbance. The existence of direct correlations between the intensity of pain and other unpleasant bodily sensations and the duration and intensity of sleep disturbances has been proved. The purpose of the study was to analyze the sleep function in patients suffering from somatoform disorders and to develop a complex medical care system for such patients. 96 outpatient subjects with a diagnosis of somatoform disorder (F.45 by ICD-10) were examined. The list of Robbins symptoms was used for a clinical evaluation; Hamilton Rating Scale for Depression was used to assess the emotional state of patients. Ananalysis of the presence and intensity of sleep disorders was conducted on the Pittsburgh Sleep Quality Index. Patients received SSRI antidepressants as a basict herapy. Patients of the treatment group were additionally treated with cinazepam. A significant improvement in sleep quality from the therapy beginning in patients from the treatment group receiving combined treatment (SSRI antidepressants and cinazepam) was showed, which correlated with a significant decrease in the intensity of depressive symptoms in this group. The combined use of SSRI antidepressants and cinazepam significantly affects the rate of reduction of sleep disorders, unpleasant somatic sensations, as well as symptoms of mental and somatic anxiety, reduces the severity of depressive-hypochondriac symptoms, improves mood and quality of life of patients with somatoform disorders.

Keywords: somatoform disorders, depressive symptoms, sleep disturbances

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Physical symptoms are considered to be the primary reason why patients seek medical assistance and consult primary medical care specialists. However, at least 30% of physical symptoms cannot be explained by physiological disturbances, and 20-25% of patients are diagnosed with these symptoms constantly in the course of a lifetime [5, 9, 11, 15]. Neurotic spectrumdiseases, in which somatoform disorders are often diagnosed, belong to one of the most common causes of such state. By various estimates, prevalence of somatoform disorders in the world is 1-2% of overall population (APA, 2004). Nowadays, authors point at essential classification differences in DSM-V and ICD-10 regarding nosological categories and diagnostic criteria when diagnoses are related to the group of somatoform disorders [8, 16, 18, 19]. However, there are several common clinical features among patients, such as: the presence of persistent, long-lasting unpleasant bodily sensations of various intensity and nature in a patient, which cannot be explained by somatic causes and which come with the feeling of anxiety and various disorders of autonomic nervous system (tachycardia, tremor, excessive perspiration, etc.), leading to lowering of social functioning and deterioration of the patient's life quality [4]. One of the most important nonspecific symptoms belonging to the group of somatoform disorders (clinicians not always give enough attention to it) is sleep disturbance [1, 6, 7]. Interconnection between unpleasant physical sensations and sleep disturbance is one