of the Amur regional clinical hospital, were analyzed. The clinical features of the disease – age, the debut features and the course were determined.

Results and discussions. The average age of the debut of myasthenia gravis in the Amur region was 38,5 \pm 5,6 years (17 to 73). Most of our patients became ill at the age of 40 years – 52.3%. Another moderate peak was observed in elderly patients. The disease debut in women was often at the young age (before 40 years), in men - at the mature (41 to 55 years). In 22 patients debut age had not been elucidated.

The first symptoms were ocular manifestations in 36 (59%) patients, musculoskeletal – in 8 (13.1%). 14 (22.9%) patients had primary generalization. Isolated pharyngoesophageal-facial symptoms wasn't observed at the onset of the disease, however, in conjunction with other symptoms, bulbar was found in 10 patients (16.4%), combined with the weakness of facial muscles in two cases (3.3%) and with the weakness of chewing muscles in two cases (3.3%). The data about the early symptoms were not found in 25 of patients. There are similar data in literature [6].

Generalization of the process in the vast majority of patients (96.2%) occurred during the first 4 years, in 76.9% – during 2 years, which coincides with the data of other authors [4, 5]. According to the out-patient's cards generalization was observed at 8 and 10 years from the onset of the disease only in two patients.

The pathology of the thymus gland, confirmed by imaging studies (CT, MRI) and histologically, was diagnosed in 29 (32.95%) patients, including thymoma - in 12 (13.6%), hyperplasia of the thymus gland - in 14 (15.9%), malignant neoplasm - in 2, the heterogeneity of the thymus gland - at 1. By the beginning of 2013 year the duration of the disease was 22 ± 2.69 years (range 1 to 32 years) on average.

Most of patients, currently observed, had generalized form - in 86.3% of cases, ophthalmic form - in 13.7%, which was conformed to the literature data [4, 6]. At the time of examining the light heaviness degree (I-II on MGFA) was diagnosed in 43.8%, the average degree (III on MGFA) - in 27.4%, and heavy (IV-V) - in 18.7% of patients. The percentage of the light and heavy degree was slightly higher than according to other authors [1].

In our study among the patients with generalized myasthenia form with predominance of weakness in the skeletal muscle and the patients with kraniobulbar pattern was 1: 1.1, agreeably.

Conclusions. On the whole, the revealed clinical features conformed to the literature data: the prevalence of women among the patients, generalized form, oculomotor disorders and ptosis as the first symptoms, the debut at a young age [2, 3, 6].

Literature

- 1. Combination of myasthenia gravis and thymoma frequency. Flow features and efficiency of thymectomy in myasthenia / M.A. Barabanov, A.S. Mikhalev, T.A. Petropavlovskaya e al. // Materials of the X All-Russian Congress of Neurology with international participation. Nizhny Novgorod, 2012. P. 427.
- 2.Bondarenko L.A., Penina G.O. Epidemiology, clinical and functional characteristics and quality of life of patients with myasthenia of North European population. // International Neurological Journal. Original research. 2009. №1. P.71-75.
- 3.Likhachev S.A., Kulikova S.L., Ostapenko A.V. Epidemiology of myasthenia in Belarus // Journal of Neurology and Psychiatry. 2014. №1. P.54-57.
- 4. Neretin V.J., Agafonov B.V., Fedorov O.P., Kildushevsky A.V. Causes and treatment of myasthenia gravis. M.: Medicine. 2009.
- 5. Ponomareva E.N. Myasthenia gravis: Clinic, pathogenesis, differential diagnosis, management tactics. Minsk: MET. 2002.
- 6.Romanova T.V. Ways of optimization of diagnostic and medical care of patients with myasthenia gravis (analysis of the experience of the regional myasthenic center). Neurology. 2012. № 2. P.92-95.

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THE INCIDENCE OF BREAST CANCER FOR THE URBAN AND RURAL POPULATION OF THE AMUR REGION Korobkova T.N., Pisareva L.F., Odintsova I.N.

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Abstract Breast cancer is part of the concept of reproductive health of women. At present breast cancer is the most common tumor in women, being the leading cause of death among women of reproductive age, which is actively making irreparable contribution to the demographic situation of the country as a whole, and the region in particular. These negative trends in epidemiological indicators for breast cancer continue to be a relevant topic of search of risk factors for possible development in the subsequent effective means of prevention. It is known that there is varying incidence of rural and urban population with predominance of the latter.

It is believed that existing features relate to environmental conditions, industrial area, conditions of life, nutrition, addictions, like exogenous risk factors and raise the level of breast cancer among urban populations. Having similar climatic conditions, but the different socio-economic and socio-cultural conditions of life in the urban and rural population of selected geochemical zones of the region, you can treat them as predictors of the development of breast cancer.

Key words: breast cancer, female population, morbidity, urban and rural population, Amur region.

The purpose of the work: examine the features of the incidence of breast cancer among women in the Amur region depending on their stay in urban or rural areas in the period from 1999 to 2013 biennium.

Materials and methods. Inform the work served as a database of Amur OD, formed on the basis of official data, accounting and reporting of medical records for the period from 1999 to 2013 biennium. The object of the study was each case of breast cancer, registered in the Amur region to some natural geographic area. Statistical estimation and calculation methods obtained data were carried out on the basis of modern methods of calculation.

Results and discussion. In 2013, the population of Amur region amounted to 816.9 thousand, of whom 548, 1 000.-urban (67.1%) and 268.8 thous. -rural population (32.9%). An analysis was made of the incidence of urban and rural populations for the entire observation period and five-year periods. The incidence of rural population analyzed in accordance with grouping districts on climatic zones: Northern, Southern, Transitional, urban-on individual municipalities urban: Blagoveschensk, Belogorsk, Svobodny, Raychikhinsk, Progress, Uglegorsk.

Thus, when examining the indicators evident predominance of the periods 5- years and growth in disease patterns of breast cancer in women living in the city: with 60.13 (DI -65.06 55.44) in the first five-year plan (1999-2003), 70.79 (DI -76.24 65.63) in five years and the maximum values-75.62 (DI -81.06 70.48) in the 3rd five-year period. For the entire period of observation (1999-2013), the standardized incidence rate of breast cancer in the urban population stood at 69.07 (DI -72.17 66.03) Pro Mille, significantly above the average for the area over the analogical period-42.82 (DI -44.14 41.50). Given that the incidence for the period 1999-2013 biennium rural population all natural climatical zones had almost equal importance: 58.01 (DI -62.76 53.48) in the northern zone; 57.27 (DI -60.24 54.40) in the southern zone; 58.02 (DI 51.64 -64.92), and the incidence rate of the urban population stood at 69.07 (66.03 -72.17), it is possible to conclude statistically significant prevalence. Thus, in the Amur region clearly a global trend of breast cancer incidence among women prevalence cities. "Rough figure" OD on 2013, totaled 82.75 at 100 thousand female population, standardized metric 52.52 \pm 2.9. "Rough" RF indicator on 2013, totaled 78.8 to 100 thousand female population, standardized metric 47.05 \pm 0.2. By DFO "rough" value on 2013, totaled 77.45 at 100 thousand female population, standardized metric 49.13 \pm 1.01. The observation period I to II five years increase in incidence was observed as do urban and rural populations, but it differed significantly.

Maximum levels of tempo of growth (35.27%) and the average annual pace of growth (16.31%) the incidence of breast cancer occurred in the northern zone, which for 15 years of the observation period "razed" their performance from the South and the transitional zones. The urban population in General also had relatively high levels of tempo of growth (25.76%) and the average annual pace of growth (12.14%). minimum, most comforting tempo increase (11.24%) and the average annual pace of growth (5.47%) rural populations have been observed in economies in the zone. Have also been studied peculiarities of morbidity gains on selected cities of the area, with marked a significant magnitude of negative indicators (declining morbidity) in Raychikhinsk (growth rate-33.07% and the average annual growth rate of -18.19%) to maximize positive in Belogorsk (44.49% growth rate and the average annual growth rate of 20.21%) in the same (Southern) natural-climatic zone. The amplitude of morbidity cities within a single zone can be explained by various endogenous risk factors: anthropogenic transformation of landscapes, feature industry, environmental water characteristics and soil space, socio-cultural factors. So, in the city of Belogorsk town-forming enterprise are enterprise and organization of "RZD", organization of the Ministry of defense of the Russian Federation.

The productive sector of the economy Belogorsk presented 50 organizations, enterprises and their affiliates by activity "manufacturing" and 21 organizations engaged in production and distribution of electricity (teplovND energy), gas and water. The city is located in the most developed part of the Amur region, where the administrative areas are mostly agricultural specialization. Juxtaposition with them led to the development of the city as the center of processing of agricultural raw materials. Lately Belogorsk became the Centre of the construction of the oil pipeline that also lays its specificity in the development of the industry and, as a result, a possible intensification of the available exogenous risk factors. RR, Belogorsk for the period 1999-2013 biennium amounted to 1.12 (with $x_2 = 4.16$). Raychikhinsk is an important center of the coal industry (extraction of brown coal open-cast mining in the town placed serving production: remontno-mehanicheskij fabric also previously operated furniture, shoe and garment factories are the order of the Government of the Russian Federation from 29.07.2014 N 1398-r (ed. by 24.11.2015) "on approval of the list of single-industry towns", included in the list of single-industry towns Russian Federation with the most difficult socio-economic situation. Despite the negative growth rate of morbidity, RR, Raychikhinsk, for the period 1999-2013 biennium amounted

to 1.34 (with $x_2 = 11.79$). Negative levels of tempo of growth (-11.75%) and the average annual pace of increase (-13.33) were also recorded in Uglegorsk. This town is totally different from the other settlements of the Amur region status, with its primary function: the main object of the village before the 2007 year was spaceport Svobodnyj, prior to disbanding — 27-I Krasnoznamennaya far Eastern Division of the strategic rocket forces. Until the year 2018 in present-day village will be built on 25 Tsiolkovsky city thousand inhabitants, which will accommodate staff constructed the cosmodrome Vostochny.

The bulk of the inhabitants is the young working population, therefore, understood the low incidence of breast cancer. Dynamics of standardized and intense incidence of Amur Oblast cities forecast definition to 2018. There is a clear trend towards the gradual rise in the incidence of breast cancer: urban population growth took place in the standardized rate of 1.4 times since 1999 Mr. 57.44 (DI -68.70 47.62) to 79.0 (DI 91.4-67.86) in 2013. Assuming the present epidemiological situation on breast cancer , the incidence of 2018g urban population will increase to 85.43 (DI 72.83-98.03) 1.49 times the initial level and 1.62 times exceeds , the standardized rate. Another great negative changes reflect the intensive analysis of indicators for the period annalogical: FE morbidity of urban population increased by 1.52 times with 54.46 (45.15-65.14) in 1999, according to 83.01 (DI -96.04 71.31) in 2013, and 1.7 times change to 2018, 92.76 (DI 82.33 -103.18). However, the numerical values of these indicators vary greatly on individual cities. For the entire period of observation incidence curves has wavy curve with maximum upgrade level of morbidity was observed in Raychikhinsk in 2005 g (185.89 per 1,000). Minimum level, also in Rajchinsk in 2011 (0 per 1,000) is most likely with the peculiarities of accounting for cancer patients. Noteworthy downward trend in incidence rates observed again in Rajchinsk. This can be explained by changes in the economic development of the city-at present the coal mining (the main town-forming enterprise) has dropped markedly.

Totally understandable is the highest incidence in the capital of the Amur region. Blagoveshchensk throughout this period and the continuing poor prognosis up to 2018. Threesome "leaders" on the projected incidence corresponds to a mean rank the place occupied by population among cities in the region. So, the first place on the projected incidence given the continuing trends takes Blagoveshchensk, where the maximum number of inhabitants of the region (more than 1/5)- 95.31 ± 13.49 Pro mille (AO to the 2018 will be 52.61 \pm 2.75) that confirms the theory of predominance of breast cancer among women in the urban population. The second most populous Belogorsk takes the second place on this level and the expected incidence of breast cancer by 2018, Mr. 88.42 \pm 40.65 Pro mille (which again is higher than in General). The third largest city in terms of population-free, though, and takes 4 to date in terms of the incidence of breast cancer -55.03 \pm 31.91 to Pro Mille 2013, Rajchinsk-62.70 \pm 37.56 to Pro Mille, 2013, however, predicted the 2018 will hold the third rank highest standardized morbidity: 73.61 \pm 17.45 to Pro Mille 2018 g (which is also higher than expected total).

Conclusion: analyzing data indicators can conclude clearly marked vast "contribution" cities in the incidence rates of breast cancer, which is coincides with all trends and makes the urban lifestyle to significant exogenous risk factors for breast cancer. The worst figures in the densely populated city area-Blagoveshchensk.

Literature

- 1.Pathogenetic approach to prevention and treatment of hormone dependent tumors/N.p. Napalkov Y.V., Semiglazov V., Bohman, R. Wagner.-Leningrad: typography # 2 Lenuprizdata, 1983.-184 p.
- 2. Semiglazov V. Breast cancer/V. Semiglazov, E. Topuzov; edited by Prof. Semiglazova V.,-m.: MED-press-inform, 2009.-176 p.
- 3. Semiglazov V., Basic results of clinical research in Oncology, Semiglazov V/2009//-2010.-No. 6 (200).-16-20.
- 4.Babinec O., Seleverstova I., Alaterceva I., etc. Zonal features in content of toxic chemicals in the biosphere of the Amur region/O. Babinec//Proceedings of international scientific and technical conference. "Zone features in the content of toxic chemicals in the biosphere of the Amur region". -Blagoveshchensk, 2000. 386 p.
 - 5.Bazhenova, A. Breast cancer/A.Bazhenova, I. Ostrovcev, 1985.-272 p.
- 6.Borisenko, M. Cancer risk in women: a possible link with the geographical latitude and some economic and social factors/M. Borisenko, V. Anisimov//Problems of Oncology.-2011 No. 3 vol. 57, 343-353p.
- 7. The Ministry of health of the Amur region, GBUZ JSC "Amur MIAS" (Blagoveshchensk). Health and the health of the population of the Amur region in 2014-Blagoveschensk: 2014.-152 p.

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EPIDEMIOLOGICAL SIGNIFICANCE OF SPATIAL PATTERNS IN THE INCIDENCE OF BREAST CANCER IN THE AMUR REGION

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