PERFORMANCE AND LONG TERM FORECAST MORBIDITI OF SENILE CATARACT IN THE AMUR REGION

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Abstract. Among the world's population the number of elderly people is increasing progressively. In the period of 1980-2020 the expected increase in the elderly population in developed countries will be 186% in developing countries - 356%. Experience of ophthalmic practice shows that the most common cause of blindness and visual impairment in older age groups is senile cataract. A retrospective analysis of data of annual statistical reports for LPU 1990-2013 is provided in the Amur medical information-analytical center. We analyzed the general and primary morbidity of senile cataract. Indicators calculated were based on the classical formulas per 1000 population per mille (‰)Primary morbidity study in nosology has increased by 400% from 0,8 ‰ (1990) to 4 ‰ (2013). Throughout the period there was a dynamic growth rates of both general and primary morbidity of senile cataract. In an average year, the overall incidence was increased by 28.9%, 16.7% of primary-on.

Key words: cataract, the dynamics of the disease, prognosis

Introduction. Among the world's population the number of elderly people is increasing progressively. In the period 1980-2020 gg. the expected increase in the elderly population in developed countries will be 186% in developing countries - 356%. Experience ophthalmic practice shows that the most common cause of blindness and visual impairment in older age groups is senile cataract. On this basis, WHO believes that in 2025 some 50 million people aged 60 will have varying degrees of intensity of lens opacity. [1] Of these, about 17 million are in need of surgical treatment[2].

Materials and methods. A retrospective analysis of data of annual statistical reports for LPU 1990-2013 gg. Provided in the Amur medical information-analytical center. We analyzed the general and primary morbidity of senile cataract. Indicators calculated based on the classical formulas per 1000 population per mille (‰). In constructing the logarithmic trend line points by calculating the least-squares method using a logarithmic mathematical formula: $y = c\ln(x) + b$, where a and b- constant and ln- natural logarithm function, and X - time forecasting. In the simulation calculated the medium-term forecast for 5 years. results of the study/We've traced the dynamics of the general and primary morbidity of senile cataract population of the Amur region from 1990 to 2013. The overall incidence of cataracts residents of the Amur region during the analyzed period increased by 693.3% to 3,3 ‰ in 1990 to 26.2 ‰ in 2013 year. Primary morbidity study nosology has increased by 400% from 0,8 ‰ (1990) to 4 ‰ (2013).

Discussion of findings. Throughout the period there was a dynamic growth rates of both general and primary morbidity of senile cataract. In an average year, the overall incidence was increased by 28.9%, 16.7% of primary-on. Also, in the study of the dynamics of the general and primary morbidity of senile cataract population of the Amur region the trend line was obtained with the forecast of 5 years, which allows reliably identify 86-88% change of this index with a mathematical value: the overall incidence = $8,746\ln(X) -4,231$, $R^2 = 0.858$; primary morbidity = $1,349\ln(X) + 0,303$, $R^2 = 0,878$. Where X - the time period for which the forecast is required of disease; R2 - the degree of reliability of approximation. According to the forecast, to 2018godu level of overall incidence of cataract may reach 39.5 ‰ with 86% certainty. As for the primary disease, its level in 2018 may reach 7 ‰ with a probability of 88% (Fig. 1) Preparation us incidence of senile cataract population of the Amur region as a whole in line with those in the country.

Conclusions. Thus, the problem of the incidence of senile cataract in the Amur region remains highly relevant, despite the high level of diagnostics and introduction of new technologies in the treatment of patients. Dynamics of general and primary morbidity of senile cataract population of the Amur Region is "aggressive" character. According to the medium-term forecast, the incidence of age-related cataract in the next 5 years in the Amur region will progressively increase, which requires the adoption of appropriate organizational and medical measures.

Literature

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