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Pancreatic cancer indicators changes in Kazakhstan

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Summary Slide

Background

- The incidence of pancreatic cancer (PC) in many countries remains high and tends to increase worldwide. PC is the seventh leading cause of cancer-related deaths in the world. According to IARC (gco.iarc.fr) assessments, this intractable malignancy has ranked the 11th most common cancer in the world counting 458,918 new cases and causing 432,242 deaths in 2018.

Aim

- To evaluate the tendencies in PC incidence in Kazakhstan.

Methods

- The material of the study was the data of the Ministry of Health of Kazakhstan, concerning PC (form 35). The retrospective study employed descriptive and analytical methods of epidemiology.

Research Results

In 2009, 845 people were registered with the first-ever diagnosis of PC and the incidence (crude rate) was 5.04±0.18$^{0}/_{0000}$. In 2018, 1096 new cases of PC were registered (table), and the incidence increased to 5.68±0.18$^{0}/_{0000}$ (t=2.51; p=0.012; T=+5.5%).

Table. PC indicators in Kazakhstan, 2009-2018

Indicators	New cases	Morphologically verified	I-II stage	III-IV stage
2009	845 (100.0%)	320 (39.7%)	109 (13.5%)	697 (86.5%)
2012	929 (100.0%)	423 (48.0%)	155 (17.6%)	598 (82.2%)
2015	958 (100.0%)	553 (62.1%)	182 (20.4%)	254 (77.6%)
2018	1096 (100.0%)	598 (58.0%)	692 (24.6%)	776 (75.3%)

Research Results

The rate of morphological verification of PC in the studied years increased from 39.7% in 2009 to 58.0% in 2018 (T=+5.5%). In the dynamics, the indicators of early diagnosis (I-II stage) increased from 13.5% (2009) to 24.6% in 2018, and the incidence of stage I-II in these years was $0.68\pm0.07^{0}/_{0000}$ and $1.40\pm0.09^{0}/_{0000}$ respectively (t=6.31; p=0.000; T=+6.2%). The incidence of stage III tended to slightly decrease from $2.35\pm0.12^{0}/_{0000}$ (2009) to $2.17\pm0.11^{0}/_{0000}$ in 2018 (t=1.11; p=0.269; T=−1.6%), and the incidence of stage IV in these years has amounted to $2.01\pm0.11^{0}/_{0000}$ and $2.10\pm0.11^{0}/_{0000}$, respectively (t=0.580; p=0.563; T=−1.2%).

Conclusions

The incidence rates of PC in Kazakhstan are rising as well as in the world. The obtained data show that special attention should be paid to the state of morphological verification. Since the indicator for 10 years amounted to only 52.3%, work on improving the level of morphological verification is still required.

Also, the level of early diagnosis is poor. What relates to the lack of screening. Ultrasound, CT and MRI are available as screening methods.

Overall, measures on prevention and better learning risk factors of PC are needed.