Changes in indicators of ovarian cancer in Kazakhstan

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Background. Ovarian cancer is among the most deadly gynaecologic malignancies worldwide and annually about 207 252 lives are lost to this disease in the world (IARC, 2020). Furthermore, with increasing life-expectancy, the number of cases diagnosed each year is increasing, and about 313 959 new cases of ovarian cancer (OC) are registered.

Aim. To evaluate the tendencies in OC incidence in Kazakhstan.

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

Results

In 2009, 835 people were registered with the first-ever diagnosis of OC and the incidence (crude rate) was 10.08±0.40/0000. In 2018, 1095 new cases of OC were registered (table), and the incidence increased to 11.69±0.40/0000 (t=3.25; p=0.001; T=+0.1%).

Indicators	2009	2012	2015	2018
New cases (%)	835 (100%)	986 (100%)	1,095 (100%)	1,095 (100%)
Morphological verification (%)	773(92.6%)	906 (91.9%)	1,036 (94.6%)	1,016 (92.8%)
I–II stage (%)	293 (35.1%)	363 (36.8%)	473 (43.2%)	447 (40.8%)
III–IV stage (%)	541 (64.8%)	620 (62.9%)	598 (54.6%)	642 (58.7%)

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Results

The rate of morphological verification of OC in the researched years increased from 92.6% in 2009 to 92.8% in 2018.

In dynamics, the indicators of early diagnosis (I–II stage) increased from 35.1% (2009) to 40.8% in 2018, and the incidence of the female population of stage I–II in these years was $3.54\pm0.20/0000$ and $4.77\pm0.20/0000$ accordingly ($t=3.95$; $p=0.000$).

The incidence of stage III tended to increase from 4.84 ± 0.24 0/0000 (2009) to $6.06\pm0.250/0000$ in 2018 ($t=3.52$; $p=0.000$), and the incidence of stage IV in these years has decreased significantly and amounted to $1.69\pm0.140/0000$ and $0.79\pm0.090/0000$, respectively ($t=5.41$; $p=0.000$).

Conclusions

Kazakhstan reflects the global trend of rise in the incidence of ovarian cancer. According to the available data, morphological verification practically remains at the same level, there is no obvious improvement. Despite the decrease in the proportion of patients with stage III-IV, an increase in the incidence of patients with stage III is alarming. To adequately fight ovarian cancer, you need to know the risk factors and control them. The data obtained permits to objectively assess the state of cancer care.

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