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Original Article

Comparative Analysis of the Mortality Structure among the Population of Andijan Region for 2016-2018

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ABSTRACT

Cancer is on the second place within the reasons of mortality among world's population, behind cardiovascular diseases. As morbidity data for 2018 shows, more than 9.5 million people deceased from malignancies (hereinafter referred to as MT). Every sixth mortality in the world is due to cancer, 70% of cancer deaths occur in countries with low or low middle income [14,18]. In 2018, 1,365 deaths in total were reported in the administrative territories of Andijan, where the cancer incidence was 6.7% (19). The article analyzes the structure of mortality from malignant tumors in both sexes of Andijan region in 2016-2018. According to the obtained data, the screening program introduced by the Government of Uzbekistan is being implemented at a fairly good level, resulting in early stage diagnostics of breast cancer and cervical cancer cases at 50% and 40% respectively due to mass preventive examinations in the districts.

Keywords: malignant tumors, prevention, mortality.

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INTRODUCTION

Mortality rate reduction is the main goal of modern medicine and public health. Reducing incidence rate of such noncommunicable diseases as diseases of the circulatory system, oncology diseases and different types of injuries, which have been leading causes of death worldwide and in Uzbekistan for many years will allow to do so [1,6,18]. Cancer is firmly on second place in the world after cardiovascular diseases in mortality: in 2010, cardiovascular diseases caused almost 13 million deaths and tumor patholigy 8 million (52.8 million deaths in 2010) [2,6,9,13]. According to the Health Statistics Center by the Health Institute of Uzbekistan, there were 15,362 deaths in Andijan region in 2018 and 6.7% of them were due to malignancies [19]. Detailed analytical materials of morbidity and mortality rates of malignant tumors appear to be very important for improving specialized oncological medical care with the aim of prevention (primary, secondary and tertiary) and early detection of cancer in the administrative territories of Andijan. Analytical data on level and structure of morbidity and mortality Andijan region population from malignant tumors in the period 2016-2018 will allow to develop a plan of measures aimed at early detection of cancer patients, as well as detection of precancerous diseases, and treatment enhancement which will result in decreasing morbidity and mortality rates. The findings in changes of the frequency and the mortality structure from cancer diseases in different areas provide the necessary information for the possibility of organizing preventive and curative measures, both at the regional and state levels, contributing to the improvement of cancer care for patients as well as early diagnostic of malignant tumors. Mortality rates are of interest primarily in terms of evaluating the control effectiveness, because of dependency on the timely diagnostics of tumors.

MATERIALS AND METHODS

The morbidity rate analysis was held out based on the data contained in the reporting form No. 007 of the oncologic statistics department of the Republican specialized scientific-practical medical center of Oncology and Radiology of the Republic of Uzbekistan, as well as the Andijan regional branch. This report is held annually for giving full information for the Ministry of health. The main informational source of this reporting form is the primary medical records "Notification of a patient with a first-time malignant tumor diagnosis" (Form No. 090/U). It includes data on malignant tumors detected during 2016-2018 in Andijan region residents (including children) who has been diagnosed cancer. It is mandatory to fill in the form despite the circumstances - when applying for medical care, during preventive examinations, during dispensaries of certain contingents of the population, chronic disease patients, examination and treatment in non-cancer hospital, autopsy examination, etc.

Initially, malignant tumors detected and accounted for reporting year are distributed by localization (by ISCD, 10th revision) and by sex. According to above data, intensive primary morbidity rates of cancer have been calculated for the Andijan and for the whole population and separately for the most common tumor localizations, for both sexes. The calculation was carried out per 100,000 of the population. In addition, a structure indicator was calculated that characterizes the share of malignant tumors of a particular location in the total number of first identified malignant tumors in both sexes. Materials from the Centre for Statistics of the Andijan region, reflecting the distribution of the absolute number of deaths from malignant tumors by sex and cause of death were used in the analysis of mortality from malignant tumors. These data formed the basis for the calculation of intensive neoplasm mortality rates, as well as for the most common tumor localizations and separately

among both sexes. The structure of mortality from malignant tumors was also calculated based on the gender of the deceased and the process localization.

RESULTS AND DISCUSSIONS

The analysis of morbidity and mortality in both sexes, depending on the malignant process localization from 2016 to 2018 is shown on the diagrams below. (Fig. 1, Fig. 2)

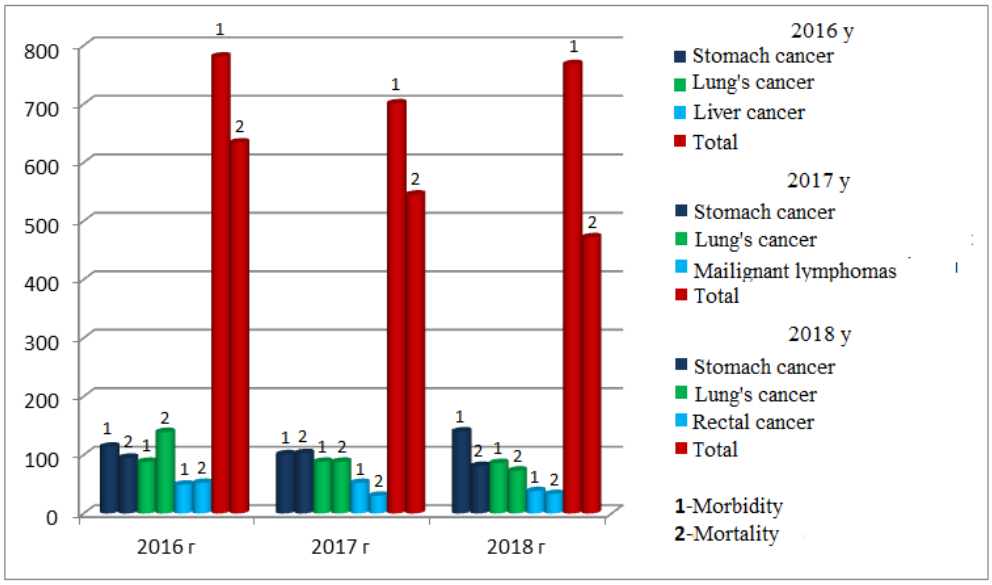

Fig. 1: Morbidity and mortality rates depending on the localization of the malignant process (male population)

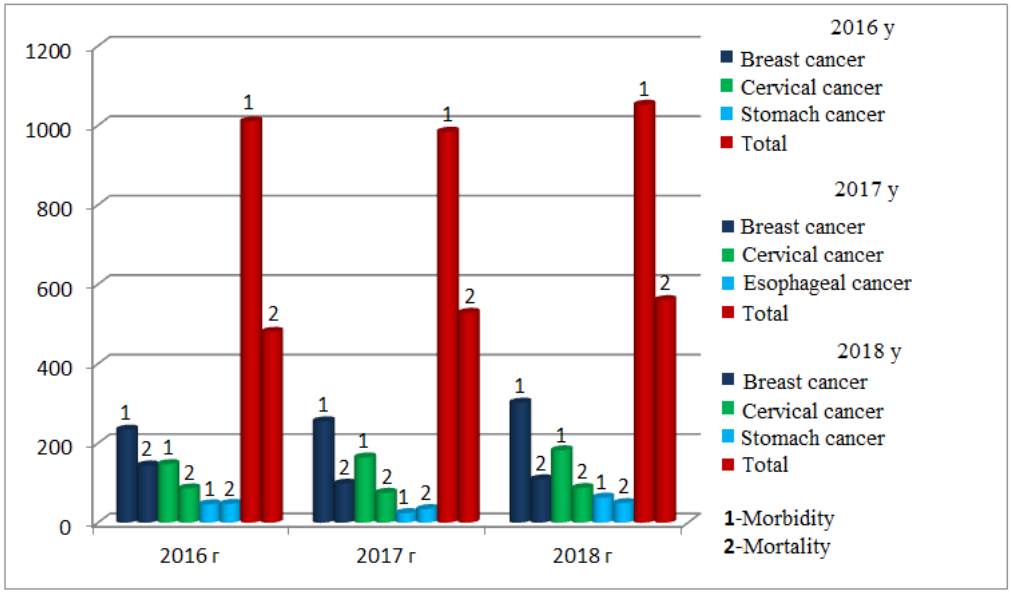

Fig 2: Morbidity and mortality rates depending on the localization of the malignant process (female population)

Data analysis of 2016 showed that the incidence of MTs among the population of Andijan province was 60.5 cases per 100,000 inhabitants (52.2 cases per 100,000 inhabitants among men and 66.4 cases per 100,000 inhabitants among women), of which the rank localizations of both sexes were breast, stomach, malignant lymphoma, cervical and lung. In 2016, 16,122 deaths were recorded in Andijan province, were 1,114 (6.9%) were due to malignant tumors. In 2016, the mortality rate of the of Andijan's population (both sexes) from malignant tumors was 37.6 cases per 100,000 people (Tab. 1). The mortality rate of men from malignant tumors in 2016 was greater than that of women, but the morbidity rate of women from MT is high. Tracheal, bronchial and lung cancer (9.3 per 100,000 men) were the leading causes of male mortality from malignant tumors in Andijan in 2016, which accounted for 21.9 % of overall male mortality from MT. Nex localizations were stomach cancer (6.4 per 100,000 men) (15.1 %), and liver cancer (3.5 per 100,000 men) (8.2 %). The first place among the main causes of mortality from malignant tumors in the female population of Andijan in 2016 the was breast cancer - 9.8 per 100 thousand women (30%), the second place was cervical cancer - 5.9 per 100 thousand women (17.9%), the

third place was stomach cancer - 3.2 per 100 thousand women (9.8%).

Data analysis from 2017 showed that the incidence of MT among the population of Andijan province was 56.9 cases per 100,000 (46.0 men and 66.0 women), of which the rank localizations of both genders were breast, cervical, stomach, lung and lymphoma respectively. In 2017, 16,159 deaths were recorded in Andijan province; of them 1,063 (6.6%) were due to malignant tumors. The mortality rate of the whole population of the Andijan region from malignant tumors in 2017 was 35.9 cases per 100,000. The mortality rate of men from malignant tumors in 2017 was almost the same for women, with a higher incidence of MT among women. Among the leading causes of male mortality in the Andijan region are the following:

In 2017, stomach cancer was the leading site of cancer - 6.6 per 100,000 men, which in the structure of male mortality corresponded to 18.9%, the second place was trachea, bronchial and lung cancer - 5.8 per 100,000 men (8.2%), the third place was malignant lymphoma - 2.0 per 100,000 men (5.5%). Regarding the main causes of mortality from malignant tumors in the female population of Andijan region in 2017 were as following: 1. breast cancer - 6.6 per 100,000 women (9.2% of all malignant tumors that caused death among women), 2. cervical tumors - 5.0 per 100,000 women (7.0%), 3. esophageal cancer - 2.3 per 100,000 women (3.2%).

If we analyze the statistical data for 2018, the incidence of MT among the population of Andijan province was 60.4 cases per 100,000 inhabitants (49.5 cases per 100,000 of men and 67.7 cases per 100,000 of women), of which the leading localizations among both sexes were as following: 1. breast, 2. stomach, 3. cervical, 4. lung and 5. lymphoma. In 2018, 15,365 deaths were recorded in Andijan province (5% less than 2017), where 1,032 (6.7%) were due to malignant tumors. In 2018, the mortality rate of the entire population of the Andijan region from malignant tumors was 33.7 (6.1% lower than in 2017) per 100,000 people. For the first time in 9 years, mortality rates in male population in 2018 was lower than female mortality.

CONFLICT OF INTEREST

None

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