

MORTALITY AMONG THE POPULATION OF THE CITY OF ALMALYK ACCORDING TO FORENSIC MEDICAL EXAMINATION DATA FROM RESPIRATORY DISEASES

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Annotation

This article provides forensic analysis and statistical processing of mortality cases associated with respiratory system disease among the population of the city of Almalyk. To solve this problem, forensic medical reports compiled by experts from the forensic medical examination department of the city of Almalyk of the Tashkent regional branch of the Republican Scientific and Practical Center for Medical Examinations for the period 2020-2022 were studied. The results of the study showed that mortality from diseases of the respiratory system is more common among men and children under 1 year of age, as well as an increase in its rates in the spring and summer. It was also noted that most often death occurred from pneumonia and bronchopneumonia.

Key words

respiratory system disease, pneumonia, bronchopneumonia, forensic medical examination, preventive measures.

Relevance of the Topic. Although diseases related to the respiratory system may not seem particularly dangerous, in reality, they belong to a group of illnesses with a very high risk of mortality. Currently, the majority of respiratory diseases occurring among the population include bronchial asthma, chronic obstructive pulmonary disease (COPD), and pneumonia. For example, according to global

statistics, bronchial asthma occurs in approximately 5% of the population on average, and this figure is even higher among children, reaching 10%. COPD is becoming one of the main causes of both morbidity and mortality worldwide. This, in turn, gives rise to economic and social problems. Among infectious diseases, pneumonia ranks first as a cause of death and sixth among all general causes of mortality. There are several other respiratory diseases that pose significant challenges. These include interstitial lung diseases, cystic fibrosis, respiratory failure, sleep apnea syndrome, pulmonary tuberculosis, and upper respiratory tract diseases.

In our country, respiratory diseases rank first in terms of overall morbidity rates among the population and account for 30–31.5% of the main types of illnesses. In terms of mortality, respiratory diseases rank fifth (4.1–4.2%) and second among children (16.6%). Uzbekistan belongs to a sharply continental climate zone. In particular, the Aral Sea disaster and recent climate changes in recent years have significantly increased the incidence of respiratory diseases among the population [1, 2, 3, 4, 5, 6, 7, 8].

Objective of the Study. To conduct a forensic medical assessment of deaths caused by respiratory diseases among the population of Almalyk city through research and statistical analysis.

Materials and Methods. In order to study the indicators of mortality due to respiratory diseases among the population of Almalyk city, expert conclusions based on autopsy examinations conducted between 2020 and 2022 at the Almalyk City Department of Forensic Medical Examination under the Tashkent Regional Branch of the Republican Scientific and Practical Center of Forensic Medical Examination and Anatomy were analyzed.

Research Results and Discussion. In 2020, a total of 323 autopsies were conducted, and in 33 cases (10.2%), death was attributed to diseases of the respiratory system, and this diagnosis was confirmed through forensic histological examination. Among them, 19 were males (57.6%) and 14 were females (42.4%). When analyzed by age: 28 cases (84.8%) were in children aged 0-1, 1 case (3.0%) in 1-3 years, 1 case (3.0%) in 3-7 years, 1 case (3.0%) in 18-30 years, 1 case (3.0%) in 30-40 years, and 1 case (3.0%) in 50-60 years. No deaths were observed in the 7-18 years, 40-50 years, and over 60 years age groups. When analyzed by seasons: 12 cases (36.4%) occurred in winter, 10 cases (30.3%) in spring, 5 cases (15.1%) in summer, and 6 cases (18.2%) in autumn. According to the days of the week: 6 cases (18.2%) on Monday, 4 cases (12.1%) on Tuesday, 8 cases (24.2%) on Wednesday, 3 cases (9.1%) on Thursday, 5 cases (15.1%) on Friday, 3 cases (9.2%) on Saturday, and 4 cases (12.1%) on Sunday. When analyzed by the place of death: 3 cases (9.1%)

occurred at home, and 30 cases (90.9%) occurred in medical institutions. When analyzing which specific disease of the respiratory system caused the deaths: 17 cases (51.5%) were caused by pneumonia, 7 cases (21.2%) by bronchopneumonia, 4 cases (12.1%) by pneumopathies, 1 case (3.0%) by pulmonary fibrosis, and 4 cases (12.1%) by intrauterine infection in pregnancy.

In 2021, a total of 321 autopsies were conducted, and in 58 cases (18.1%), death was attributed to diseases of the respiratory system, and this diagnosis was confirmed through forensic histological examination. Among them, 34 were males (58.6%) and 24 were females (41.4%). When analyzed by age: 50 cases (86.2%) were in children aged 0-1, 1 case (1.7%) in 3-7 years, 1 case (1.7%) in 18-30 years, 1 case (1.7%) in 30-40 years, 3 cases (5.2%) in 40-50 years, and 2 cases (3.4%) in 50-60 years. No deaths were observed in the 1-3 years, 7-18 years, and over 60 years age groups. When analyzed by seasons: 17 cases (29.3%) occurred in winter, 15 cases (25.9%) in spring, 14 cases (24.1%) in summer, and 12 cases (20.7%) in autumn. According to the days of the week: 8 cases (13.8%) on Monday, 15 cases (25.9%) on Tuesday, 7 cases (12.1%) on Wednesday, 9 cases (15.5%) on Thursday, 5 cases (8.6%) on Friday, 10 cases (17.2%) on Saturday, and 4 cases (6.9%) on Sunday. When analyzed by the place of death: 10 cases (17.2%) occurred at home, and 48 cases (82.8%) occurred in medical institutions. When analyzing which specific disease of the respiratory system caused the deaths: 42 cases (72.4%) were caused by pneumonia, 7 cases (12.1%) by bronchopneumonia, 7 cases (12.1%) by pneumopathies, 1 case (1.7%) by pulmonary fibrosis, and 1 case (1.7%) by intrauterine infection in pregnancy.

In 2022, a total of 299 autopsies were conducted, and in 39 cases (13.0%), the cause of death was determined to be respiratory system diseases. This diagnosis was confirmed by forensic histological examination. Among them, 21 were male (53.8%) and 18 were female (46.2%). Age-wise analysis showed that: 34 (87.2%) were aged 0-1 years, 1 (2.6%) was aged 3-7 years, 1 (2.6%) was aged 7-18 years, 1 (2.6%) was aged 18-30 years, 1 (2.6%) was aged 30-40 years, and 1 (2.6%) was aged 50-60 years. No deaths were observed in children aged 1-3 years, 40-50 years, or those older than 60. Seasonal analysis showed that: in winter, 14 cases (35.9%), in spring, 11 cases (28.2%), in summer, 8 cases (20.5%), and in autumn, 6 cases (15.4%) of death due to respiratory diseases were recorded. Regarding the days of the week: Monday 8 cases (20.5%), Tuesday 7 cases (17.9%), Wednesday 2 cases (5.1%), Thursday 7 cases (17.9%), Friday 4 cases (10.2%), Saturday 7 cases (17.9%), Sunday 4 cases (10.2%) of death from respiratory diseases were observed. Analyzing the location of death: 7 deaths (17.9%) occurred at home, and 32 deaths (82.1%) occurred in medical facilities. When analyzing which specific respiratory disease caused the deaths: pneumonia - 32 cases (82.1%), bronchopneumonia - 6 cases

(15.3%), and pulmonary tuberculosis - 1 case (2.6%). No deaths were registered due to pneumopathies or intrauterine infection in the fetus.

The study found that over the past 3 years, no deaths from acute respiratory viral infections were recorded.

Regarding the analysis of death from respiratory diseases among the population of Almalyk city during 2020-2022, it was found that deaths were more frequent in males than females and in children under 1 year old, with an increasing mortality rate in spring and summer. It was also noted that pneumonia and bronchopneumonia were the leading causes of death from respiratory diseases.

Conclusion. According to data provided by the State Statistics Committee, the mortality rate from respiratory diseases in our country in 2008 was 6.6%, which ranked third, with cardiovascular diseases in first place (59.3%) and oncological diseases in second place (7.1%). Among children, the mortality rate due to respiratory diseases in 2008 was 35%, ranking second after perinatal period pathologies (44.8%). In recent years, the mortality rate from respiratory diseases has ranged from 4.1% to 5.1%, ranking fifth. Among children, this rate has decreased to 16-16.6%. This clearly reflects the development of pulmonology services in our country. Recent reforms in the healthcare system, the introduction of modern diagnostic and treatment methods in all regions of the country, the continuous development of new treatment and diagnostic standards and protocols, and their constant monitoring play a significant role in the development of this field.

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