

Analysis of Disease Composition of Malignant Tumor Patients and Suggestions on Hospital Management

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Abstract: Objective: To understand the main diseases and composition of malignant tumor inpatients, and to provide reference for hospital management and malignant tumor prevention and control plan. Methods: The first page of malignant tumor cases admitted to a hospital from 2014 to 2018 was collected, and a database was established for analysis. The distribution and composition of malignant tumor diseases admitted to a hospital were analyzed. Results: Malignant tumor patients accounted for 6.23% of the total number of hospitalized tumor patients in the hospital every year, of which the top six were lung cancer, esophageal cancer, gastric cancer, liver cancer, breast cancer and leukemia, which accounted for 64.03% of all malignant tumors. Conclusion: The number of hospitalized patients with malignant tumors is increasing year by year. Regular physical examination aiming at high incidence of malignant tumors, early detection and treatment can reduce the incidence of malignant tumors.

1. Introduction

Malignant tumor is a major disease threatening human health and life. It has caused huge psychological pressure and heavy economic burden to patients, families and society. In the hospitalization expenses of tumor patients, the proportion of drug expenses is the highest. Malignant tumor has been the first cause of death among Chinese residents in recent 10 years [1]. Literature reports that the incidence of cancer in China is increasing at an annual rate of 4%, while the relative survival rate of cancer in China is about 30.9% within 5 years [2]. In order to prevent and control tumors, strengthen supervision and improve the survival rate of patients, this paper mainly sorts out the hospitalized patients with malignant tumors in a hospital from 2014 to 2018, analyzes the composition and dynamic changes of the hospitalized patients with malignant tumors, can understand the incidence and treatment of tumors in residents, and can provide reference basis for hospital management, resource allocation, personnel training and further development of the hospital.

2. Data and Methods

2.1 General Information

The patients with malignant tumors admitted to a hospital for the first time from January 2014 to December 2018 were collected and analyzed according to the data on the first page of the case. The diagnosis and classification criteria were all carried out according to the international disease ICD-10 code, of which the malignant tumor code was C00-C97. Inclusion criteria: 1) patients diagnosed as malignant tumor in a hospital; 2) All cases are valid and have complete information. Exclusion criteria: patients admitted repeatedly and repeatedly within one year.

2.2 Method

Consult the complete case data of the patient and extract the detailed information of the patient, including general information such as name, gender and medical record number, as well as admission data such as hospitalization time, hospitalization times, tumor stage and pathological classification.

2.3 Statistical Method

Visual Fox Pro is used as a development tool to import the front page data of inpatient medical records in our hospital from January 2014 to December 2018, establish a new database, summarize, count and sort the data, and then make comparison and analysis.

3. Results and Analysis

3.1 Total Prevalence and Common Tumors

Table 1 Constitution of 1026 Malignant Tumors from 2014 to 2018

Tumor name	Number of cases	Composition (%)
Lung cancer	168	16.37
Esophageal cancer	133	12.96
Gastric cancer	114	11.11
Liver cancer	108	10.53
Breast cancer	71	6.92
Leukemia	63	6.14
Malignant tumor of female genital organs	45	4.39
Colon cancer	39	3.80
Intestinal anorectal	27	2.63

From 2014 to 2018, a total of 1026 patients with malignant tumors were admitted to a hospital, including 586 males and 440 females. Comparing the data of 6 years, it is found that the prevalence rate of malignant tumors is increasing year by year, of which the total number of cases in 2017 is 1.35 times that in 2014. The number of female patients is slightly higher than that of male patients, and the overall proportion shows a year-on-year flat trend. Among 1026 malignant tumors, the top six are lung cancer, esophageal cancer, gastric cancer, liver cancer, breast cancer and leukemia, which account for 64.03% of all malignant tumors. The growth rate of tumor patients reached 8.03%, of which malignant tumor was 6.47%. The number of tumor patients in each year showed no obvious upward trend through trend chi-square test.

3.2 Composition and Ranking of the Top 10 Malignant Tumors of Different Sexes

Table 2 the Top 10 Malignant Structures and Ranks of Different Genders

Rank	Male			Female		
	Tumor name	Number of cases	Composition%	Tumor name	Number of cases	Composition%
1	esophageal cancer	126	12.28	Lung cancer	70	6.82
2	Lung cancer	107	10.43	Malignant tumor of breast	68	6.63
3	Gastric cancer	82	7.92	Cancer of female genital organs	45	4.39
4	Liver cancer	79	7.70	Gastric cancer	25	2.44
5	Leukemia	41	4.00	Leukemia	23	2.24
6	Malignant carcinoma of colon	18	1.75	liver cancer	21	2.05
7	Rectal cancer	13	1.27	Colon cancer	18	1.75
8	Malignant carcinoma of urinary tract	7	0.68	Rectal cancer	15	1.46
9	Malignant tumor of brain	5	0.49	Esophageal cancer	11	1.07
10	Cancer of male genital organs	4	0.39	Malignant tumor of brain	6	0.58

Among the major malignant tumors, the top five in the male cancer spectrum are esophageal cancer, lung cancer, gastric cancer, liver cancer and leukemia. The top five cancers in the female spectrum are lung cancer, breast cancer, female genital organ cancer, gastric cancer and leukemia.

4. Discussions and Suggestions

4.1 Improving the Quality of Hospital Medical Service and Developing Hospice Care for Patients with Advanced Cancer

A total of 18,369 patients were discharged from the hospital from 2014 to 2018, and 6.23% of the patients in the hospital were malignant tumors. Malignant tumor is one of the main sources of diseases in the hospital, and malignant tumor is the second cause of death in our country [3]. Therefore, the hospital should provide high-quality medical services for tumor patients, and at the same time, it should provide comprehensive physical and mental care for those tumor patients who are dying at the end of their lives. The disease spectrum in our country has undergone obvious changes [4]. The disease spectrum dominated by infectious diseases and nutritional diseases has gradually been replaced by malignant tumors, cardiovascular and cerebrovascular diseases, etc. In particular, the incidence of malignant tumors is increasing at a fast speed and has become a common and frequently-occurring disease endangering human health. Because different types of cancer prevention and treatment methods are not the same, China's tumor prevention and treatment according to the specific situation of specific analysis, according to individual and regional differences to develop different prevention and treatment programs and measures [5]. Under the palliative treatment of doctors, the discomfort on the body can be controlled to the maximum extent, and the life can be maintained naturally to ensure the dignity of the life [6], so that the dying patients can reach the end of life peacefully and without regret in limited time. The incidence of cancer increases with age, but in recent years the aging population has accelerated and the absolute number of patients has increased. The expansion of the scale of a hospital, the increase of beds and the perfection of large-scale diagnosis and treatment equipment; A hospital has cooperated with the municipal tumor prevention and control institute to carry out a series of tumor prevention and control work, especially the early diagnosis and treatment of upper gastrointestinal tumors. In order to improve the quality of life of patients with advanced tumors, we should gradually establish a distinctive organization for hospice care and supportive therapy for patients with advanced tumors.

4.2 Strengthen the Construction of Oncology Discipline

We must give prominence to key points in discipline construction, and we must not adopt a one-size-fits-all approach. Lung cancer, esophageal cancer, gastric cancer, liver cancer, breast cancer and leukemia are among the top six in the hospital in the past two years. Malignant tumors have become a major threat to the health of residents. There is still a long way to go in our country's tumor prevention and control work. The changes of cancer conditions in our country are complicated, and the death toll continues to rise, which has caused serious burden to our society and people. In the process of tumor prevention and control in our country, we should strengthen the investigation and research, and formulate feasible prevention and control programs according to the different situations of hospitals in various regions. Governments at all levels should attach great importance to the prevention of cancer and focus on its objectives and tasks in consolidating the achievements in health creation and further developing community health services. Therefore, the hospital should take the clinical practice of these high-incidence malignant tumors as the main research direction, and continuously promote the diagnosis and treatment technology of other diseases through improving the medical technology level of key diseases. The results of this article also show that the 10 kinds of cancers that are more common among the hospitalized patients in a hospital are: lung cancer, cervical cancer, esophageal cancer, gastric cancer, thyroid cancer, nasopharyngeal cancer, breast cancer, liver cancer, rectal cancer and colon cancer. The incidence rate of lung cancer is the highest, which is consistent with the research reports of Wang Haidong et al[7]. In addition, the incidence and treatment of lifestyle diseases such as lung cancer and colorectal cancer have increased in recent years, which suggests that residents should pay attention to the quality of life and advocate a healthy lifestyle.

4.3 Tumor Treatment Should Develop to Comprehensive Treatment

“In the treatment of malignant tumors, those involving multiple methods to treat the same tumor

are technically called comprehensive treatment” [8]. Since 1980, the medical model has changed from a single biomedical model to a bio-social-psychological model, which has brought profound influence to the clinical transformation of tumors. At the same time of ensuring the health care funds at the beginning of each year, the special fund for tumor prevention and treatment shall be withdrawn, the “three-level prevention and treatment network” shall be established and perfected, the policy of “three-early prevention and treatment” shall be implemented [9], and the tumor prevention and treatment strategies, plans and specific practices such as clinical and community “three-level prevention” programs shall be integrated into community health services. With the increase of age, the physiological function gradually decreases and the resistance also decreases, which are the decisive factors leading to the increase of the incidence rate of malignant tumors. Therefore, special attention should be paid to the prevention and treatment of malignant tumors in this part of the population. Experts at home and abroad have unanimously agreed on the deficiency of single therapy in tumor treatment. It is necessary to make use of various existing therapy methods to systematically and reasonably apply various effective methods in various disciplines according to the physical and mental status of patients, specific tumor location, pathological type, invasion scope (disease period) and development trend, and in combination with changes in molecular biology. Give full play to the role of equipment and provide high-quality, high-level and all-round convenient and fast medical services. Reasonable adjustment of the internal setting and structure of the department, reduce waste of medical resources, improve the level of oncology specialty, improve the level of oncology diagnosis, and give full play to the characteristics of oncology specialty.

4.4 Training Specialized Talents in Oncology

In the process of tumor specialty construction, specialized talents are the most basic element. A leading specialist should have both ability and political integrity, excellent technology and strong management ability, and a reasonable echelon of talents. Therefore, it is particularly important to strengthen the training of tumor-related knowledge for prevention and treatment personnel. Training should be conducted for different objects. For professional and technical personnel, including on-the-job medical personnel in primary medical institutions, employees in factories, mines, enterprises, government organizations, infirmaries and health clinics, special training courses can be held in combination with continuing medical education to make cancer prevention knowledge and skills a compulsory course for primary medical personnel training. The pace of urbanization in China's rural areas is gradually accelerating, environmental pollution is increasing, and the traditional way of life in China is also constantly changing. As a result, recent studies show that the incidence of cancer in China is also gradually changing. However, with the continuous improvement of life expectancy, cancer prevention and control is particularly important [10]. In view of the complexity of tumor diseases in the treatment process, medical and nursing personnel should carry out long-term, systematic and planned training and further study of tumor specialized theory and technology, accumulate clinical experience in their work and improve their moral cultivation.

4.5 The Establishment of Tumor Registration System, to Carry out a Census or Screening

The establishment of tumor registration system is a long-term systematic project, and the data collected by tumor registration is of special significance to the prevention and treatment of tumors in the community. Malignant tumors have become the main cause of death in many countries or regions in the world, posing a serious threat to human life. It is difficult to find early tumor in general health examination, and the tumor census needs special examination for a specific tumor in order to find it in the early stage. And it is not to say that a physical examination can solve this problem. In addition, for tumor screening, the screening should be repeated once every one or two years in a fixed population (especially in high-risk population), with at least 3-4 cycles. In general or special groups, various examination methods are adopted to distinguish suspected tumor patients from asymptomatic groups, and then early diagnosis and treatment are carried out. Some chronic diseases can also be found, especially patients with precancerous lesions. Only in this way can the goal of real prevention be achieved. Hospitals should carry out tumor screening work as early as

possible and for a long time so as to achieve early detection, early diagnosis and early treatment, improve early detection rate and cure rate, reduce mortality rate, and do a good job in secondary prevention of malignant tumors.

4.6 Strengthen the Prevention and Health Promotion of Malignant Tumors

The first strategy to prevent cancer is to eliminate the primary prevention of the cause of the disease and to prevent various factors causing and promoting cancer from invading the human body, which is the most ideal prevention approach and method. A large number of epidemiological and etiological studies have proved that many carcinogenic factors mainly come from people's production and living environment. In recent years, due to the continuous updating of human production and life style, the amount of waste gas discharged into the atmosphere gradually accumulates, and the atmospheric pollution intensifies. Severe environmental pollution leads to the destruction of human respiratory and immune systems. Harmful substances in the air are inhaled into the body, increasing the incidence of lung cancer. Lung cancer is the top priority in cancer prevention and treatment, and these 8 kinds of cancer deaths account for more than 80% of the total cancer deaths in China. People can eliminate or reduce the invasion of cancer-causing and cancer-promoting factors into the human body and prevent the occurrence of cancer by improving harmful environment and changing bad living habits. Going out from simply sitting in the hall to practice medicine, from hospitals to society, from individuals to groups, to carry out community services, and to incorporate cancer prevention and health education into primary health care. Therefore, hospitals can widely carry out tumor science popularization knowledge and establish consultation desks through various means such as communities, newspapers, billboards, TV lectures, etc., so as to enable the masses to master scientific knowledge of tumor disease prevention and control and strengthen their own awareness of protection.

5. Conclusion

The number of hospitalized patients with malignant tumors is increasing year by year. Regular physical examination for high incidence of malignant tumors, early detection and treatment can reduce the incidence of malignant tumors. Strengthen the propaganda of tumor prevention knowledge and conduct regular tumor screening for high-risk groups; Traditional Chinese medicine accounts for a large proportion of hospitalization expenses for malignant tumor patients, especially the random use of auxiliary proprietary Chinese medicines, which can be controlled through clinical pathway and other measures.

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