

Development and Influencing Factors of Female Cancers

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Abstract Female cancers represent a group of diseases that pose a serious threat to women's health. The classification and progression of these cancers hold significant clinical implications and research value. They profoundly jeopardize women's health and lives. For medical practitioners and researchers, comprehending the classification and developmental trends of female cancers aids in formulating more precise diagnostic and treatment strategies, ultimately enhancing cure rates and quality of life. Various classification methods exist for female cancers, based on factors such as site of lesion, pathological type, and clinical manifestations. These distinct classification methods carry diverse clinical significance, assisting clinicians in more accurately diagnosing and treating different types of female cancers. The development of female cancers involves a progression from cellular changes to precancerous lesions and then to cancer. Understanding this progression facilitates better prevention, early detection, and improved treatment outcomes and survival rates for female cancers. This review on the development of cancer in women, aiming to delve deeply into their understanding, offering readers a comprehensive insight, and serving as a reference for the prevention and treatment of female cancers.

Keywords Female cancers; Cancer prevention; Development process; Influencing factors

Women constitute a crucial part of society, and their health directly impacts the stability and development of families and communities. They represent a significant force in society, and their health and development are closely linked to societal progress and advancement. Female cancers, including breast, uterine, and ovarian cancers among others, are prevalent gynecological diseases. The incidence of female cancers has been steadily rising, and mortality rates remain high, posing a significant threat to women's health and lives. Hence, in-depth research into female cancers holds paramount importance. Studying female cancers allows for a deeper understanding of women's health issues. The increasing incidence of female cancers significantly affects women's reproductive capacity and quality of life.

The pathogenesis of female cancers is highly complex, involving the combined effects of multiple factors. With the continuous development of modern medical technology, research and treatment of female cancers have been making progressive strides. Through research, new treatment methods and medications can be explored, elevating the treatment efficacy and survival rates for female cancers, thereby advancing medical progress. Female cancer research aims to provide improved medical services for women. The increasing incidence and mortality rates of female cancers place a heavy burden on patients and their families. The primary objective of female cancer research is to deeply understand the pathogenesis and treatment methods of these cancers, driving the exploration of women's health issues and medical advancements.

Gaining an in-depth understanding of the mechanisms and associated factors behind female cancers provides a scientific basis and methods for their prevention and treatment. Female cancers not only impose physical and psychological burdens on patients themselves but also have significant effects on families and society. By studying female cancers, insights into patient and family needs and psychological states can be obtained, allowing for better social and psychological support to enhance treatment outcomes and quality of life. Through the study of female cancer, we can gain insight into the physiological and pathological changes of the female reproductive

system, providing an important reference for the study of women's health problems. This review aims to enhance understanding of female cancers, facilitating better prevention, early diagnosis, and treatment. Through collective efforts, significant strides are expected in the prevention and treatment of female cancers.

1 Epidemiology and Statistical Data of Female Cancers

1.1 Trends in female cancer incidence

The trends in female cancers are a complex issue, varying with time and geographical locations, leading to changes in the types and incidence rates of female cancers. Apart from the commonly known breast, endometrial, and ovarian cancers, women may also suffer from other types of cancers such as cervical, lung, stomach, liver, colorectal, and thyroid cancers. Among these, cervical cancer ranks as the fourth most common cancer globally, while lung cancer stands out as one of the most prevalent cancers worldwide. The trend of female cancer incidence also correlates with age. Generally, as women grow older, their risk of developing cancer increases. For instance, the incidence of breast cancer sharply rises after the age of 50.

The trends in female cancers are also influenced by regional and cultural backgrounds. Statistically, developed countries exhibit higher incidence and mortality rates of female cancers compared to developing nations. One significant reason behind this is that women in developed countries tend to marry and conceive later in life, leading to lower fertility rates, consequently increasing the risk of developing cancers. In several developing countries, the incidence and mortality rates of female cancers are on the rise annually. Due to insufficient health education and medical resources, many women are unable to detect and treat cancers early. Overall, the trends in female cancers are a critical concern. With aging populations and changes in lifestyles, the incidence and mortality rates of female cancers might continue to rise. Therefore, it's imperative to bolster health education, enhance women's health awareness, and intensify research and practices in cancer prevention and treatment.

1.2 Global incidence and mortality statistics of female cancers

The incidence and mortality rates of female cancers globally pose a significant public health concern. The rising incidence and mortality rates of female cancers have imposed substantial burdens on the global medical, social, and economic sectors. Here, I'll supplement information regarding the global statistics on the incidence and mortality rates of female cancers. Both the incidence and mortality rates of female cancers worldwide have been steadily increasing. According to data from the World Health Organization (WHO), the global incidence and mortality rates of female cancers stand at 181 and 86 per 100 000 populations, respectively. Among these, breast, endometrial, and ovarian cancers are the three major types of female cancers.

Breast cancer stands as the most prevalent type among female cancers, with approximately 2.3 million new cases reported globally each year. It's estimated that the incidence rate of breast cancer will continue to rise in the coming decades. The incidence of endometrial cancer is also on the rise, with a decreasing age of onset. WHO estimates around 320 000 new cases of endometrial cancer occurring globally each year. Ovarian cancer, the most fatal among female cancers, exhibits high incidence and mortality rates. Approximately 220 000 new cases of ovarian cancer are reported annually, with over 90% being malignant. Due to the lack of early symptoms, early detection of ovarian cancer is challenging. Therefore, the treatment of ovarian cancer is also more difficult.

Significant disparities exist in the incidence and mortality rates of female cancers among different regions and countries. In some developed nations, the incidence and mortality rates of female cancers surpass those of developing countries. For instance, in the United States, both the incidence and mortality rates of female cancers are higher than in China. This is mainly attributed to factors such as delayed marriage and childbearing, lower fertility rates, unhealthy diets, and lack of physical activity among women in developed countries. However, in some developing countries, the incidence and mortality rates of female cancers are also on the rise due to factors like insufficient health education and medical resources, changes in dietary structures, air and water pollution, among others. The global incidence and mortality rates of female cancers continue to rise. Understanding these statistics is crucial for devising preventive and treatment strategies. Furthermore, reinforcing health education,

enhancing women's health awareness, and improving healthcare resources are pivotal measures to reduce the incidence and mortality rates of female cancers (Bray et al., 2018; Siegel et al., 2019) (Figure 1).

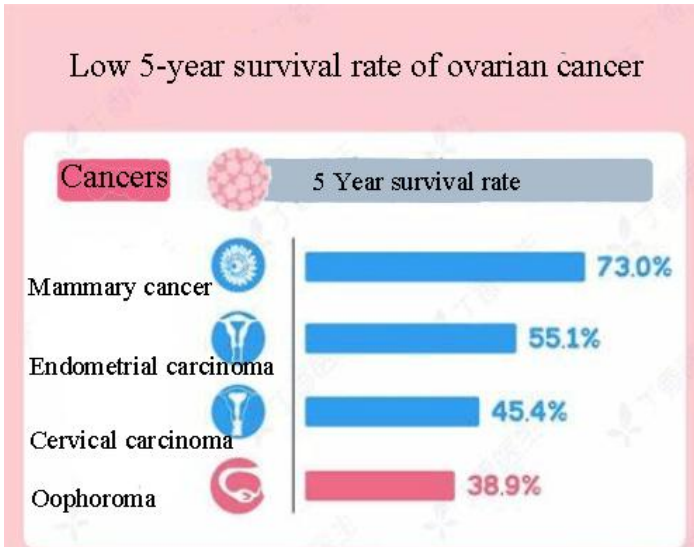


Figure 1 The survival rates of female cancers over the past five years

1.3 Classification of female cancers

1.3.1 Breast cancer

Breast cancer stands as one of the most prevalent cancers among women, typically occurring within the breast tissues. Symptoms of breast cancer encompass breast lumps, skin dimpling, nipple discharge, nipple pain, among others. The classification of breast cancer includes primary breast cancer, metastatic breast cancer, and local recurrent breast cancer. Pathological characteristics of breast cancer involve cell nuclear abnormalities, proliferation, mitotic figures, imbalance in cytoplasm and nuclear ratios, and more. Histological types of breast cancer comprise ductal carcinoma in situ, invasive ductal carcinoma, breast carcinoma in situ, among others. The differentiation grades of breast cancer encompass highly differentiated, moderately differentiated, and poorly differentiated categories (Nejati et al., 2021; Spoor et al., 2023) (Figure 2).

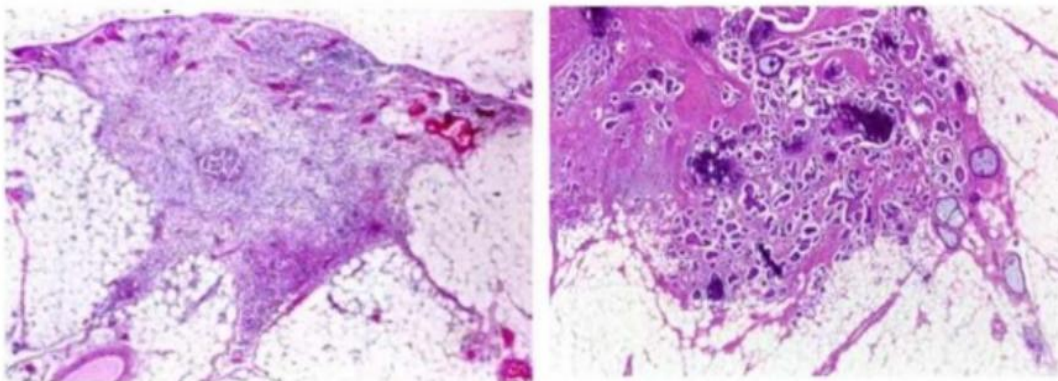


Figure 2 Cancer cells in the microscope

1.3.2 Cervical cancer

Cervical cancer is one of the most common types of cancers in the female reproductive system, typically caused by human papillomavirus (HPV) infection. Symptoms of cervical cancer include abnormal vaginal bleeding, pain, and bleeding during sexual intercourse. Classification of cervical cancer includes squamous cell carcinoma, adenocarcinoma, adenosquamous carcinoma, undifferentiated carcinoma, among others. The pathological features of cervical cancer include cell nuclear abnormalities, cell nuclear proliferation, mitotic figures, imbalance in cytoplasm and nuclear ratios, and more. Histological types of cervical cancer comprise squamous cell carcinoma,

adenocarcinoma, adenosquamous carcinoma, etc. Differentiation grades of cervical cancer include highly differentiated, moderately differentiated, and poorly differentiated categories.

1.3.3 Ovarian cancer

Symptoms of ovarian cancer include abdominal pain, bloating, and digestive issues. Classification of ovarian cancer includes epithelial ovarian cancer, germ cell tumors, sex cord-stromal tumors, undifferentiated tumors, among others. The pathological features of ovarian cancer include cell nuclear abnormalities, cell nuclear proliferation, mitotic figures, imbalance in cytoplasm and nuclear ratios, and more. Histological types of ovarian cancer comprise epithelial ovarian cancer, germ cell tumors, sex cord-stromal tumors, etc. Differentiation grades of ovarian cancer include highly differentiated, moderately differentiated, and poorly differentiated categories.

1.3.4 Endometrial cancer

Endometrial cancer is one of the most common types of cancers in the female reproductive system, typically occurring within the endometrial layer of the uterus. Symptoms of endometrial cancer include irregular bleeding and dysmenorrhea. Classification of endometrial cancer includes endometrial adenocarcinoma, endometrial adenosquamous carcinoma, endometrial squamous cell carcinoma, among others. The pathological features of endometrial cancer include cell nuclear abnormalities, cell nuclear proliferation, mitotic figures, imbalance in cytoplasm and nuclear ratios, and more. Histological types of endometrial cancer comprise endometrial adenocarcinoma, endometrial adenosquamous carcinoma, endometrial squamous cell carcinoma, etc. Differentiation grades of endometrial cancer include highly differentiated, moderately differentiated, and poorly differentiated categories.

1.3.5 Vaginal cancer

Vaginal cancer is a relatively rare type of cancer in the female reproductive system, typically occurring on the vaginal wall. Symptoms of vaginal cancer include vaginal bleeding, pain, and abnormal discharge. Classification of vaginal cancer includes squamous cell carcinoma, adenocarcinoma, undifferentiated carcinoma, among others. The pathological features of vaginal cancer include cell nuclear abnormalities, cell nuclear proliferation, mitotic figures, imbalance in cytoplasm and nuclear ratios, and more. Histological types of vaginal cancer comprise squamous cell carcinoma, adenocarcinoma, undifferentiated carcinoma, etc. Differentiation grades of vaginal cancer include highly differentiated, moderately differentiated, and poorly differentiated categories.

1.3.6 Vulvar cancer

Vulvar cancer is a relatively rare type of cancer in the female reproductive system, typically occurring on the skin of the vulva. Symptoms of vulvar cancer include vulvar lumps, pain, and itching. Classification of vulvar cancer includes squamous cell carcinoma, adenocarcinoma, undifferentiated carcinoma, among others. The pathological features of vulvar cancer include cell nuclear abnormalities, cell nuclear proliferation, mitotic figures, imbalance in cytoplasm and nuclear ratios, and more. Histological types of vulvar cancer comprise squamous cell carcinoma, adenocarcinoma, undifferentiated carcinoma, etc. Differentiation grades of vulvar cancer include highly differentiated, moderately differentiated, and poorly differentiated categories.

1.3.7 Nipple tumor

Nipple tumors are benign tumors, typically occurring in the nipple and areola tissues. Symptoms of nipple tumors include nipple discharge and nipple retraction, generally without causing pain. Classification of nipple tumors includes nipple adenoma, ductal papilloma, among others. The pathological features of nipple tumors include cell nuclear abnormalities, cell nuclear proliferation, mitotic figures, imbalance in cytoplasm and nuclear ratios, and more. Histological types of nipple tumors comprise nipple adenoma, ductal papilloma, etc. Differentiation grades are generally not applicable to benign tumors.

The classification of female cancers based on the site of lesions can assist doctors in more accurately diagnosing and treating cancers. For women, regular gynecological and breast examinations are crucial for the timely detection and treatment of cancers. Additionally, maintaining a healthy lifestyle, including balanced diet, moderate

exercise, and avoiding tobacco and excessive alcohol consumption, can reduce the risk of developing cancers. Pathology-based classification aids doctors in gaining a more accurate understanding of the morphological and characteristic features of cancer cells, allowing for the determination of the optimal treatment plan. For patients, it also provides a better understanding of their condition and treatment plan. Therefore, it is recommended that patients closely collaborate with their doctors during the treatment process and undergo regular check-ups to promptly detect and treat any abnormalities. Simultaneously, maintaining a healthy lifestyle, such as a balanced diet, moderate exercise, and avoiding tobacco and excessive alcohol consumption, can reduce the risk of cancer development.

2 Development Process of Female Cancers

2.1 Formation and progression of precancerous lesions

Precancerous lesions usually manifest as slowly progressing diseases, representing the early stages of cancer development. The formation and progression of precancerous lesions typically take years, contingent upon factors like a patient's genotype, lifestyle, and environmental elements.

For breast cancer, precancerous lesions often encompass proliferative changes and in situ carcinoma. Proliferative changes involve abnormal cell proliferation in breast tissue, including proliferative breast disease and complex cystic lesions. In situ carcinoma represents malignant cell transformation in breast tissue, encompassing ductal carcinoma in situ and lobular carcinoma in situ, among other types. Cervical cancer's precancerous lesions usually comprise cervical intraepithelial neoplasia (CIN) and cervical intraepithelial precancerous lesions. CIN refers to abnormal cervical epithelial cell proliferation, including inflammation, atypical hyperplasia, and CIN. Cervical intraepithelial precancerous lesions represent malignant transformation of cervical epithelial cells, including CIN3 and in situ carcinoma types.

Ovarian cancer's precancerous changes typically involve surface epithelial tumors and ovarian cystic changes. Surface epithelial tumors signify abnormal cell proliferation of ovarian surface epithelial cells, including surface epithelial cysts, surface epithelial tumors, and low malignant potential surface epithelial tumors. Ovarian cystic changes represent malignant transformation of cystic ovarian cells, including cystic precancerous lesions and cystic carcinoma. Endometrial cancer's precancerous changes usually include endometrial hyperplasia and endometrial precancerous lesions. Endometrial hyperplasia denotes abnormal cell proliferation in the endometrium, including endometrial thickening, cysts, and polyps. Endometrial precancerous lesions represent malignant transformation of endometrial cells, including endometrial adenocarcinoma precancerous lesions and endometrial intraepithelial neoplasia precancerous lesions. The precancerous lesions of vaginal cancer and vulvar cancer usually include VIN and VAIN. VIN and VAIN are lesions of abnormal proliferation of vaginal or vulvar epithelial cells, which are usually associated with human papillomavirus (HPV) infection (Jiang, 2009).

2.2 Cancer staging and progression

Cancer staging assesses disease severity and prognosis based on factors like tumor size, depth, extent of invasion, and lymph node metastasis. Currently, institutions like the World Health Organization (WHO) and the American Cancer Society (ACS) have established unified cancer staging standards, including TNM staging and staging systems.

TNM staging evaluates cancer severity and prognosis based on tumor size (T), lymph node metastasis (N), and distant metastasis (M). Staging systems determine disease severity and prognosis based on clinical manifestations and pathological characteristics. Common staging systems include FIGO staging (for gynecological tumors), Duke staging (for colorectal cancer), and BCLC staging (for liver cancer), among others.

Cancer progression is usually a multistage process. Following precancerous lesions, cancer cells progressively invade surrounding tissues and organs, eventually leading to metastatic lesions. During cancer progression, cancer cells gradually lose normal cell characteristics, becoming increasingly heterogeneous and malignant while acquiring greater invasive and metastatic abilities.

2.3 Mechanisms of cancer metastasis and recurrence

Cancer metastasis refers to the spread of cancer cells from the primary site to other areas, forming distant metastatic lesions. Cancer metastasis is a significant concern in cancer treatment and is among the primary factors affecting patient prognosis. Mechanisms of cancer metastasis mainly include hematogenous metastasis, lymphatic metastasis, and direct extension. Hemogenous metastasis means when cancer cells enter other sites through blood circulation and form distant metastatic lesions. Lymphatic metastasis involves cancer cells entering lymph nodes through lymphatic vessels and then reaching other areas, forming distant metastatic lesions. Direct extension involves cancer cells directly invading surrounding tissues and organs, leading to distant metastatic lesions (Figure 3).

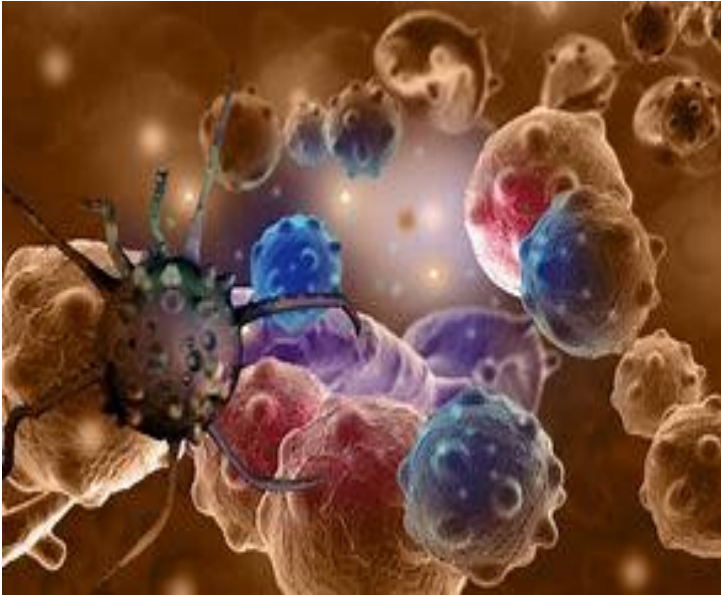


Figure 3 The metastasis of cancer cells

Cancer recurrence refers to the reappearance of the original cancerous lesion or the emergence of new cancerous lesions after treatment. The mechanisms behind cancer recurrence mainly involve residual cancer cells, treatment resistance, and the tumor microenvironment. Residual cancer cells are those cancer cells that persist within a patient's body after treatment and may regrow and spread at a later stage. Treatment resistance refers to the cancer cells' ability to resist therapeutic drugs or radiation, potentially leading to treatment failure and recurrence. The tumor microenvironment includes the surroundings of cancer cells, comprising the extracellular matrix, blood vessels, immune cells, etc., which can significantly impact the growth and spread of cancer cells.

3 Prevention and Screening for Female Cancers

3.1 Environmental factors and prevention

Environmental factors play a crucial role in the occurrence of female cancers, including air pollution, chemicals, and radiation. Therefore, women should strive to avoid exposure to these harmful substances, refrain from prolonged exposure to toxic environments such as chemical laboratories, and focus on maintaining clean and well-ventilated indoor air. Additionally, women should be cautious about using cosmetics and cleaning products containing toxic substances, opting for healthier and environmentally friendly products to protect their health. Environmental factors are the source of cancer occurrence, through the understanding and identification of carcinogens in the environment, understanding the role of carcinogens in cancer occurrence mechanism is of key significance for cancer prevention and treatment.

3.2 Diet and lifestyle for prevention

Diet and lifestyle are also essential aspects of preventing female cancers. Women should maintain healthy eating habits by reducing the intake of high-fat, high-calorie, and high-sugar foods, and increasing the consumption of fresh vegetables, fruits, whole grains, as well as moderate amounts of fish and legumes for quality protein.

Women should also maintain a good lifestyle, avoid bad habits such as smoking and drinking, maintain moderate exercise and good sleep quality, enhance the body's immunity, and reduce the risk of cancer.

3.3 Cancer screening and early diagnosis

For breast cancer, women should undergo annual breast examinations and mammograms, especially those at high risk, such as those with a family history of breast cancer. For cervical cancer, women should have annual gynecological examinations and Pap smear tests to promptly detect and treat abnormalities. For ovarian cancer, annual gynecological examinations and transvaginal ultrasound examinations are recommended for timely detection and treatment of abnormalities. Additionally, women can undergo cancer screening and early diagnosis through genetic testing, enabling the timely identification of disease risks and the implementation of appropriate preventive and therapeutic measures.

Preventing and screening for female cancers are crucial components of women's health protection, reducing the risk of cancer and improving survival rates. Women should be attentive to the influences of environmental factors, diet, and lifestyle, avoiding exposure to harmful substances, maintaining a healthy diet and lifestyle, strengthening the immune system, and reducing the risk of cancer occurrence. Regular cancer screening and early diagnosis are also recommended to promptly detect and treat abnormalities, improving survival rates and quality of life (Zheng et al., 2013; Goswami et al., 2022).

4 Psychological and Social Impacts of Female Cancers

4.1 Psychological impact of cancer on women's mental health

With the increasing number of female cancer patients, it is crucial to focus on the psychological impact of cancer on women's mental health. Firstly, a cancer diagnosis is a significant blow to women, often accompanied by emotions of fear, anxiety, and despair. They may feel scared and helpless, worrying about their lives and the future of their families. This psychological pressure inevitably has negative effects on their mental health (Ho et al., 2004).

The physical changes during the treatment process also affect women's mental health. For example, breast cancer patients undergoing mastectomy may face challenges to their self-esteem and body image due to breast loss. Furthermore, treatment methods such as radiation and chemotherapy may cause side effects like hair loss, nausea, and fatigue, impacting women's mental health.

Female cancer patients often experience psychological stress, anxiety, depression, and other issues, which may have negative effects on their physical health. Simultaneously, the physical pain, nausea, vomiting, and other side effects during cancer treatment also affect women's mental health. Female cancer patients need psychological support and attention, which can be achieved through counseling and support groups to alleviate anxiety and depression, maintaining a positive mindset and improving survival rates (Gao and Li., 2007; Tan et al., 2023).

4.2 Impact of cancer on women's social roles

Female cancer patients face challenges in terms of their social roles and identities. During the treatment process, women may need extended periods of rest or have to stop working, affecting their social roles and life quality. It also has repercussions on their families and society. Many female patients experience prolonged breaks or reduced working hours, which might cause them to miss opportunities for promotion or career development, negatively affecting their economic status and self-worth.

Cancer also affects women's family roles. Women often play crucial roles in the family, such as wives, mothers, and caregivers. However, the occurrence of cancer may prevent them from fulfilling these roles full-time, requiring dependence on others for assistance and support. This dependency and role transition may bring about guilt and helplessness, negatively impacting their mental health (Zhao et al., 2002; Zhang, 2013).

4.3 Measures to improve the quality of life for female cancer patients

To enhance the quality of life for female cancer patients, various measures can be taken to help them cope with psychological and social impacts. Firstly, establishing a robust psychological support system is crucial. Female

cancer patients can access professional psychological support and assistance through counseling and support groups. These support systems can help them understand and cope with their emotions, reduce anxiety and depression, and improve mental health.

Positive social support also has a significant impact on the quality of life for female cancer patients. Support from family, friends, and the community can help them overcome challenges, providing emotional support and encouragement. Additionally, employers and organizations can offer flexible work arrangements and support measures to help female patients balance work and treatment needs, reducing negative impacts on their work and careers.

Focusing on the body image and health of female cancer patients is also an essential aspect of improving their quality of life. Providing appropriate services such as wigs, breast prostheses, and image counseling can help female patients regain confidence and body image. Moreover, offering suitable nutritional and rehabilitation guidance helps female patients better manage physical changes and side effects during treatment, enhancing their quality of life (Greime et al., 2002; Nwakasi et al., 2023).

5 Significance and Contribution of the Classification and Development of Female Cancers

The classification and development of female cancers play a vital role in the prevention and treatment of cancers related to women. By categorizing and researching female cancers, a better understanding of the etiology, pathogenesis, and prognosis of different cancer types can be achieved, providing a scientific basis for medical decisions and treatment plans.

Categorizing female cancers contributes to enhancing the accuracy and sensitivity of early diagnosis. Different types of cancers exhibit distinct clinical manifestations and biological characteristics. By classifying and studying different types of cancer, specific markers or mutations of specific types of cancer can be discovered, thereby improving the accuracy of early diagnosis. For instance, breast cancer classification based on histological type, hormone receptor status, and HER2 expression helps determine appropriate treatment strategies and predict outcomes.

The classification and development of female cancers are crucial for personalized treatments. Different cancer types respond differently to treatments and exhibit varying drug resistance. Through classification and research, understanding the molecular characteristics and driving mechanisms of various cancers provides a basis for personalized treatments. For example, endometrial cancer classification based on DNA mismatch repair deficiency determines whether patients are suitable for immune checkpoint inhibitor therapy.

The classification and development of cancer in women is of great significance for etiology research and prevention. Through the classification and research of cancer, the pathogenesis and risk factors of different types of cancer, to provide scientific basis for the prevention and control of diseases. For instance, cervical cancer classification based on the status of human papillomavirus (HPV) infection assists in devising individualized prevention strategies like HPV vaccination and regular screenings.

The classification and development of female cancers also offer opportunities for researching and developing new treatment methods and approaches. Studying cancer classification and research can unveil molecular mechanisms and signaling pathways of different cancer types, guiding the development of new drugs and innovative treatment methods. For instance, through the classification and research of ovarian cancer, researchers discovered the significant efficacy of PARP inhibitors for BRCA mutation patients, offering a new direction for personalized treatment of ovarian cancer patients.

The classification and development of cancers in women have important significance and contributions to the prevention and treatment of female-related cancers. Through the classification and research of female cancer, it can improve the accuracy of early diagnosis, realize individualized treatment, in-depth study of etiology and prevention, and promote the development of new treatment methods and means. These studies and advances will bring new hope and opportunities for the treatment and rehabilitation of female cancer patients.

6 Summary and Outlook

The field of cancer treatment faces a series of challenges and opportunities. In the coming years, there might be distinctive developments in the treatment and prevention of female cancers. In the future, with the continuous development and widespread adoption of genetic sequencing technology, personalized treatment is set to become the mainstream trend in treating female cancers, improving treatment efficacy and survival rates. Personalized treatment involves providing targeted treatment plans based on a patient's genome, epigenome, transcriptome, among other information. In recent years, immune therapy drugs for female cancers like breast and ovarian cancer have emerged, promising to become crucial means of treatment. Immunotherapy involves using activated or modulated immune systems to attack cancer cells (Chen et al., 2021).

Early diagnosis is a crucial method for cancer prevention. With the continual development of biomarkers, imaging technologies, etc., early diagnosis of female cancers will become more accurate and precise. Female cancers involve multiple disciplinary fields, and the future will emphasize multidisciplinary collaboration, including comprehensive treatments like radiotherapy, chemotherapy, surgery, rehabilitation, etc., to improve treatment efficacy and survival rates. Future treatments and prevention of female cancers will trend toward individualization, precision, and comprehensiveness, offering better treatment and survival opportunities for female cancer patients.

Understanding the definition, symptoms, and treatment methods of female cancers, enhancing prevention and early screening, contribute to improved prognosis and survival rates for female cancers. Women should prioritize their health, undergo regular gynecological examinations and cancer screenings, while maintaining healthy lifestyles to reduce the risk of female cancers. Optimizing the treatment of female cancers is significant for women's health and societal development. It not only safeguards women's health and enhances quality of life but also provides opportunities for prevention and intervention, advances medical research and innovation, raises public awareness and education, and offers support and assistance. Through sustained efforts and global cooperation, further improvements in women's health, reduced incidence, and mortality rates of female cancers can create a better future for women.

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