

Current Status of Home Management of Oral Targeted Drugs for Cancer Patients

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Abstract: Malignant tumors have a high incidence in clinical practice, posing a significant threat to human health and severely impacting patients' quality of life. Targeted drugs represent an effective therapeutic strategy, precisely addressing tumor sites to inhibit disease progression and alleviate the adverse effects of radiotherapy and chemotherapy. Despite these benefits, the use of targeted drugs often results in various adverse reactions, necessitating enhanced clinical management and protection. This study analyzes the current state of home management of oral targeted drugs in patients with malignant tumors, identifies influencing factors, and proposes improvement measures tailored to practical conditions. These efforts aim to ensure medication safety and provide valuable references for clinical practice.

Keywords: Malignant tumor; Targeted drugs; Home management; Influencing factors

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1. Introduction

From the perspective of clinical practice, advancements in medical science have established targeted drug therapy as a crucial measure in the treatment of malignant tumors. By addressing specific molecular targets, targeted drugs control tumor progression with fewer side effects, greater precision, and improved therapeutic outcomes, offering significant benefits for enhancing patients' quality of life.

However, as the application of targeted drugs becomes increasingly prevalent, concerns about their safety in home use have grown. Although the efficacy of targeted drugs is well-documented, managing their administration at home presents challenges. Patients frequently experience adverse reactions during treatment, negatively affecting both the efficacy and safety of the therapy.

Therefore, understanding the current state of home management for oral targeted drugs in patients with malignant tumors and addressing associated challenges is essential. Developing effective management strategies based on practical considerations is critical for improving therapeutic outcomes and ensuring patient safety.

2. Hazards of malignant tumors

Malignant tumors are diseases that pose a serious threat to human health. They are characterized by abnormal cell proliferation, loss of control over growth, and disruption of tissue integrity. Malignant tumors exhibit key traits such as invasiveness and metastasis. Recent clinical data indicate that the incidence of these diseases is influenced by adverse conditions, including lifestyle choices and environmental factors, leading to a gradual increase in cases. This has made malignant tumors a significant public health issue with serious implications for life and health.

- (1) Impact on quality of life: Malignant tumors cause considerable harm, especially as they often remain asymptomatic in the early stages and are difficult to detect. As the tumor grows, it affects normal tissues and organs, leading to a decline in their functionality^[1]. Continuous proliferation of tumor cells results in compression and erosion of surrounding healthy cells, tissues, and organs, manifesting as destructive growth. This process causes various symptoms and increases pain, significantly lowering the patient's quality of life and posing a serious threat to their overall well-being.
- (2) Threat to life and health: Malignant tumors are highly metastatic, and tumor cells can spread through the bloodstream or lymphatic system, leading to the formation of secondary lesions in other parts of the body. For instance, breast cancer can metastasize to the bones, lungs, or liver, while lung cancer may spread to the brain. Such metastasis worsens the patient's condition, complicates clinical treatment, increases disease management challenges, and elevates mortality rates, posing a severe threat to the patient's life and health.
- (3) Impact on mental health: The effects of malignant tumors extend beyond physical health, significantly impacting patients' families, finances, and mental well-being. Patients often require costly treatments, such as surgery, radiotherapy, and chemotherapy, which impose substantial financial burdens. This economic strain is accompanied by intense psychological stress, including concerns about disease progression, medical expenses, and treatment outcomes. These factors often lead to anxiety, depression, and other negative emotions, further exacerbating the disease's impact.

Given the profound harm caused by malignant tumors, greater attention to prevention, early detection, and effective treatment is essential. Strengthening clinical efforts in these areas can improve patient outcomes, reduce the burden of the disease, and promote advances in healthcare management.

3. Advantages of oral targeted drugs compared with other chemotherapeutic agents

From the perspective of clinical advancements, oral targeted drugs represent an effective treatment approach for patients with malignant tumors. Numerous clinical studies have demonstrated that the efficacy of oral targeted drugs is significantly superior to that of radiotherapy and chemotherapy. Evidence suggests that, compared to traditional chemotherapy agents, oral targeted drugs exhibit higher selectivity. Their mechanism of action enables targeted destruction of tumor cells by identifying and attacking specific molecular targets unique to cancer cells, thereby minimizing damage to normal tissues. This targeted approach greatly enhances their clinical application value.

Clinical research further indicates that oral targeted drugs mitigate many side effects associated with traditional chemotherapy, such as nausea, vomiting, and hair loss, thus offering higher clinical utility^[2]. The reduced side effect profile not only improves patient well-being but also decreases the need for frequent medical visits, enhancing the quality of life for patients. Furthermore, the oral administration of these drugs is convenient,

allowing patients to undertake treatment at home. This aspect offers cancer patients the possibility of home-based care, reducing the burden of frequent hospital visits.

In contrast, traditional chemotherapy and other methods often require hospital-based treatments, typically administered via intravenous injection. These procedures necessitate regular hospital visits for examinations, making treatment more frequent and complex, which can significantly disrupt patients' daily lives ^[3]. On the other hand, oral targeted drugs, usually administered in tablet or capsule form, allow patients to adhere to treatment schedules at home under medical guidance. This convenience saves time, reduces patient anxiety, and enhances overall comfort.

In conclusion, the use of oral targeted drugs holds significant clinical value due to their efficacy, reduced side effects, and patient-friendly administration methods.

4. Current status of home management

4.1. Patients' medication compliance is insufficient

In the clinical management of patients with malignant tumors, those prescribed oral targeted drugs are generally required to take them as per the doctor's advice, making home-based management relatively independent. However, many patients lack an adequate understanding of the importance of proper drug usage and the disease itself. Consequently, some patients discontinue the medication or reduce the dosage on their own when symptoms improve or when they perceive improper usage. Instances of patients not adhering to correct medication schedules or failing to follow contraindications have also been observed ^[4]. Such issues of poor medication compliance not only diminish the efficacy of the treatment but may also lead to increased drug resistance, worsening the patient's condition and impeding recovery.

4.2. Lack of management of adverse drug reactions

Although targeted drugs typically cause fewer side effects, individualized responses can still result in adverse reactions such as rash, gastrointestinal discomfort, or fatigue, which negatively affect patients. The lack of professional knowledge among patients and their families regarding the prevention and management of these complications exacerbates the issue. When adverse reactions occur, patients often cannot handle them effectively, leading to symptom aggravation or reduced medication compliance, ultimately hindering treatment outcomes. Furthermore, delayed communication with healthcare providers about adverse reactions may result in missed opportunities to mitigate these side effects, significantly impacting patients' health and quality of life.

4.3. Drug storage and management are not standardized

Oral targeted drugs often require strict storage conditions, such as specific temperature and humidity controls, to maintain their efficacy and safety. However, many patients lack awareness of proper drug storage practices and fail to prioritize these requirements. This negligence can result in improper storage, such as casually discarding drugs after use, leading to changes in drug properties, diminished efficacy, or even adverse reactions, thus jeopardizing patient safety ^[5]. Additionally, improper drug management practices, including unauthorized adjustments to dosage or frequency, further increase treatment risks.

4.4. Lack of systematic health monitoring and feedback

Home-based management of malignant tumor patients often lacks effective medication monitoring, leading to inadequate awareness of subtle changes in the patient's condition. This gap prevents timely intervention and treatment. For patients with concurrent chronic diseases, limited knowledge about contraindications with other drugs poses additional risks. Moreover, routine monitoring of vital health indicators such as blood pressure, blood glucose, and body weight is frequently insufficient, potentially affecting treatment efficacy and delaying recovery. The absence of efficient feedback channels restricts timely adjustments to treatment plans, as such changes are typically based on periodic reviews, further compromising the effectiveness of drug therapy.

4.5. Insufficient psychological support for patients and their families

The prolonged treatment cycle for malignant tumors often leads to negative emotions such as loneliness, anxiety, and depression in patients, exacerbated by financial pressures and the disease itself. While family members may offer some psychological support, professional counseling is usually unavailable. Furthermore, emotional changes in patients often go unnoticed, which can aggravate their mental health issues and decrease treatment adherence. These psychological challenges not only diminish patients' quality of life but can also worsen their medical condition, causing substantial harm ^[6].

5. Home management strategies

5.1. Enhance patient medication compliance

Improving patient medication compliance is essential in home management to ensure the clinical efficacy of targeted drugs. Clinical interventions should include strengthening medication management by leveraging tools such as WeChat and mobile applications to remind patients to take drugs on time and in the correct dosage. Personalized medication plans tailored to the patient's specific circumstances should be implemented to enhance medication safety. Additionally, follow-up interventions are crucial. Medical staff can regularly assess patients' medication habits and symptom changes through telephone or video consultations to evaluate drug efficacy and safety while addressing inappropriate medication behaviors promptly ^[7]. Furthermore, health education for patients must be reinforced, encouraging family members to participate in daily management to help patients adhere to their treatment plans through supervision and encouragement.

5.2. Strengthen guidance on managing side effects

Insufficient monitoring of adverse drug reactions significantly impacts the safety of targeted drug usage. Medical staff should provide comprehensive health education upon patient discharge, including instructions on medication use, side effect monitoring, and management strategies. Common side effects of oral targeted drugs and their mitigation methods should be explained, along with guidance on maintaining a healthy diet and engaging in moderate exercise. Establishing effective communication channels with patients is essential, enabling regular inquiries and encouraging prompt reporting of discomfort. This approach allows timely identification and intervention for adverse reactions, ultimately improving the safety of medication use.

5.3. Standardize drug storage and management

Improper drug storage can compromise efficacy, necessitating enhanced awareness of drug management among

patients and their families. Before discharge, medical staff should provide clear instructions on proper storage methods, such as keeping drugs in a cool, dark place and avoiding high-temperature exposure. Providing patients with intelligent medicine boxes equipped with dispensing functions can help ensure proper dosage and timing, enhancing medication safety^[8]. Additionally, involving family members in medication management by reminding patients to take drugs and securely storing them can further safeguard medication efficacy and patient safety.

5.4. Improve the health monitoring and feedback mechanism

To address inadequate health monitoring in home management, telemedicine monitoring equipment should be introduced, and regular follow-ups should be conducted. Medical staff should assess patients' existing conditions, manage medications considering any comorbidities, and facilitate monitoring of critical health indicators such as blood pressure and weight. Patients should be instructed to upload monitoring data to a medical platform via mobile applications, allowing medical professionals to promptly evaluate the data and adjust treatment plans as needed. Remote monitoring and feedback systems not only improve the precision and personalization of treatment but also provide comprehensive health protection during home-based care.

5.5. Provide continuous psychological support and counseling

Long-term home treatment often induces psychological stress, making psychological support a vital aspect of home management. Medical staff should conduct regular online psychological consultations, inquire about patients' emotional well-being, and maintain a kind and empathetic attitude to encourage communication. These measures can help alleviate negative emotions such as anxiety and loneliness. Encouraging family members to provide consistent companionship and emotional support is equally important in reducing patients' psychological distress^[9]. Establishing patient communication groups and hosting rehabilitation-sharing meetings can foster mutual support among patients, reducing their psychological burdens and enhancing their quality of life and treatment confidence.

6. Conclusion

In conclusion, malignant tumors pose significant health risks, and oral targeted drugs are an effective treatment option. However, challenges remain in the management of these drugs during home care. Future efforts should focus on strengthening home medication management to ensure patient safety and enhance clinical treatment outcomes.

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