

## The prevention and treatment of lower extremity venous thrombosis after gynecological tumor operation by exercise intervention

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**Keywords:** exercise intervention method; Gynecological oncology; Venous thrombosis of lower extremities; Prevention; Treatment effect

**Abstract: Objective:** To investigate the effect of exercise intervention on the prevention and treatment of venous thrombosis in lower extremity after gynecological tumor surgery. **Methods:** 42 patients who underwent gynecological tumor surgery in our hospital from January 2017 to January 2018 were selected as study subjects, and randomly divided into the control group and the observation group, with 21 patients in each group. The control group carried out routine nursing mode, and the observation group introduced exercise intervention method on this basis. By comparing the incidence of adverse reactions and treatment effect of the two groups of patients, the prevention and treatment effect of exercise intervention method in lower limb venous thrombosis after gynecological tumor surgery was discussed. **Results:** The incidence of adverse reactions in the observation group was significantly lower than that in the control group, and the difference was statistically significant ( $P < 0.05$ ). The total effective rate in the observation group was significantly higher than that in the control group, with statistically significant difference ( $P < 0.05$ ). **Conclusions:** In patients with gynecological tumor surgery, early in their exercise intervention can reduce the occurrence of adverse reactions to a great extent, not only contribute to the improvement of the clinical symptoms of patients, but also can enhance the curative effect of lower extremity venous thrombosis, to ensure that the patient's life and health is very good, is worth promoting.

### 1. Introduction

Gynecological tumor is a common disease of women, according to the different parts of its onset, and can be divided into uterine tumor, vaginal tumor, ovarian tumor and tumours of the fallopian tube. Once suffer from department of gynaecology tumour, the patient can appear the following symptom more: vagina bleediness, leucorrhea is unusual, inferior abdomen appears bump to wait a moment, affected the patient life health seriously. For gynecological tumor patients, clinical surgery is generally used to treat, so as to clear the focus, but also to prevent the malignant tumor. However, surgical treatment also has certain disadvantages, that is, patients need to stay in bed for a long time and their activities are limited, so it is easy to cause a series of complications, among which the incidence of lower limb venous thrombosis is the highest. This requires the majority of nursing staff must adopt effective nursing methods, constantly improve the quality of nursing, strive to reduce the incidence of complications at the same time, but also can play a role in the prevention and treatment of lower limb venous thrombosis, so as to ensure the physical and mental health of patients. With the increase of clinical trials, exercise intervention plays an irreplaceable role in the nursing of lower limb venous thrombosis after gynecological tumor surgery. Therefore, this paper discusses the prevention and treatment effect of exercise intervention in lower extremity venous thrombosis after gynecological tumor surgery, thus obtaining effective data and conclusions, which are reported as follows.

## **2. Materials and Methods**

### **2.1 General Materials**

42 patients who received gynecological tumor surgery in our hospital from January 2017 to January 2018 were selected as the study objects, and were randomly divided into control group and observation group, with 21 cases in each group. The control group: aged 35-68 years, with an average age of  $51.3 \pm 2.6$  years. There were 10 cases of uterine tumor, 5 cases of vulvar tumor, 4 cases of ovarian tumor and 2 cases of fallopian tube tumor. The observation group: aged 34-70 years, with an average age of  $(52.8 \pm 2.7)$  years, there were 12 cases of uterine tumor, 4 cases of vulvar tumor, 4 cases of ovarian tumor and 1 case of fallopian tube tumor. All patients participated in this study on the premise of knowledge and willingness, and all patients had no organ dysfunction or mental disorder. There was no significant difference between the two groups, which was comparable ( $P > .05$ ).

### **2.2 Methods**

#### **2.2.1 The control group**

The control group implemented the routine nursing mode, the main contents of which were as follows: after admission, the patients were given admission guidance, a comfortable hospital environment was provided for the patients, and the notes and preparations for the operation were given to the patients, thus laying a good foundation for the smooth implementation of the operation. After the operation, the patients will be given health guidance, so that the patients and their families can carry out rehabilitation nursing according to the doctor's instructions, so as to help the patients master rich nursing knowledge, so as to continuously improve the self-management ability of the patients.

#### **2.2.2 The observation group**

Observation group on the basis of conventional nursing into exercise intervention, specific content is as follows: first, nurses need to introduce to the patients and their families the specific content of exercise intervention, encourage patients and their families can deeply realize the importance and necessity of application of exercise intervention, improving the compliance of the patients, so as to get the best effect of nursing lay a good foundation. Secondly, nursing staff need to teach the family members of patients with a variety of massage methods, with the soleus massage and gastrocnemius massage as an example, the massage techniques are as follows: the family members of patients need to use a hand to hold the patient's ankle joint, gently lift the patient's lower limbs, lift the height as long as the above the wound can be. Then hold the patient's soleus and gastrocnemius muscles (around the upper middle of the lower leg) with the other hand and squeeze the lower leg by rotating the hand to improve blood flow to the lower leg. , of course, in order to get a significant nursing effect, passive movement of patients' families alone is not enough, which requires the nursing staff need to let the patient to realize the importance of active movement, constantly improve the enthusiasm of patients with active movement, so as to avoid the formation of the lower extremity venous thrombosis, specific can refer to the following method: let the patient to learn of the soleus and gastrocnemius muscle force, by contracting hard to alleviate the symptoms of muscle atrophy, at the same time also need to cooperate with ankle movement, by foot varus or valgus action to complete ankle sports training, to ensure that all parts of the blood circulation of lower limbs. At the beginning of the implementation of sports intervention, nursing staff need to observe the whole process, so as to do a good job of supervision, but also to find the wrong action, in order to immediately correct and guide, so as to avoid the aggravation of illness due to wrong action. Passive exercise needs to be carried out 15-20 times a day, each time for about 1 minute; And active motion needs to undertake 10, 15 times a day, every time motion 1 minute or so, undertake alternately. If the patient has developed deep venous thrombosis of the lower extremity, in addition to the exercise intervention mentioned above, anticoagulant and thrombolytic

drugs should also be used to enhance the treatment effect. For patients with fever, anti-infective treatment is also required. Finally, in order to protect the venous vessels, the patient's family members should apply hot compress to the patient's lower limbs every day, and turn over the body for the patient. The affected limbs should often change the body position. The easily pressed parts can be massaged with talcum powder or cleaned and wiped with normal saline, so as to improve the clinical symptoms and reduce the incidence of pressure sores.

### 2.3 Observation Indicators

The incidence of adverse reactions (including lower extremity fever, lower extremity pain, lower extremity swelling and varicose veins) and the treatment effect (including obvious, effective and ineffective) were compared between the two groups. The total effective rate of treatment = (number of effective patients + effective patients) / 21 × 100%.

### 2.4 Statistical Treatment

SPSS17.0 software was used for statistical analysis of the data collected in this study. The measurement data were expressed as ( $\bar{x} \pm s$ ), the t-test was used for inter-group comparison, the adoption rate of counting data was expressed as (%), and the  $\chi^2$  test was used for inter-group comparison.  $P < 0.05$  indicated that the difference was statistically significant.

## 3. Results

### 3.1 Comparison of incidence of adverse reactions between the two groups

The incidence of adverse reactions in the observation group was significantly lower than that in the control group, and the difference was statistically significant ( $P < 0.05$ ). The specific data were shown in table 1.

Table 1 comparison of incidence of adverse reactions between the two groups [n (%)]

group	n	fever of lower limb	ache of lower limb	swelling of lower limb	varicosity
the observation group	21	6 (28.57)	3 (14.29)	2 (9.52)	1 (4.76)
the control group	21	11 (52.38)	8 (38.10)	6 (28.57)	5 (23.81)
$P < 0.05$					

### 3.2 Comparison of treatment effect between the two groups

The total effective rate of treatment in the observation group was significantly higher than that in the control group, and the difference was statistically significant ( $P < 0.05$ ). The specific data were shown in table 2.

Table 2 comparison of therapeutic effect between the two groups [n (%)]

group	n	excellent	effective	noneffectiv e	effective rate
the observation group	21	12(57.14)	8(38.10)	1(4.76)	20(95.24)
the control group	21	6(28.57)	9(42.86)	6(28.57)	15(71.43)
$P < 0.05$					

## 4. Discussion

In recent years, the incidence of gynecological tumors in China continues to rise, has become the highest incidence of gynecological diseases, a serious threat to the health of female friends. For gynecological tumor patients, the most common and effective treatment method is tumor resection surgery, which can not only fundamentally remove the focus, but also prevent malignant tumor,

with a relatively significant clinical treatment effect. However, tumor resection also has certain disadvantages and deficiencies, that is, it has a high complication rate, such as urinary infection and venous thrombosis of lower limbs, among which the incidence of venous thrombosis of lower limbs is the highest. This is because patients often need a long time to recuperate after surgery, during which the patient's activities are limited, which not only affects the circulation of blood in lower limbs, but also increases the risk of muscular atrophy and the eventual formation of venous thrombosis in lower limbs. Therefore, in order to prevent the formation of lower extremity venous thrombosis, the majority of nursing staff must give nursing intervention, help patients move lower extremity, give patients effective intervention treatment, strive to reduce complications at the same time, but also to help patients recover as soon as possible. As an effective nursing method, exercise intervention is of great significance and influence to improve the clinical symptoms of gynecological tumor patients. Applying it to the prevention and treatment of lower extremity venous thrombosis after gynecological tumor surgery can not only obtain ideal nursing effect, but also improve the satisfaction of patients. This study showed that the incidence of lower extremity fever, lower extremity pain, lower extremity swelling and varicose veins in the observation group was lower than that in the control group, with statistically significant differences ( $P<0.05$ ). The total effective rate (95.24%) in the observation group was significantly higher than that in the control group (71.43%), with statistically significant difference ( $P<0.05$ ).

Above all, in patients with gynecological tumor surgery, early in their exercise intervention can reduce the occurrence of adverse reactions to a great extent, not only contribute to the improvement of the clinical symptoms of patients, but also can enhance the curative effect of lower extremity venous thrombosis, to ensure that the patient's life and health is very good, is worth promoting.

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