

# Application of Integrated Traditional Chinese and Western Medicine Nursing Based on the ERAS Concept in the Perioperative Period of One Patient with ALS Under ERAS Concept

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## Abstract

*This paper summarizes the surgical treatment and rehabilitation of ureteral calculi and hydrocele in a patient with ALS. At the same time of operation and western medicine treatment, supplemented with traditional Chinese medicine, combined with traditional Chinese acupuncture, massage, traditional Chinese medicine collapse external application, auricular point pressure seed and rehabilitation function exercise and other comprehensive treatment, combined with effective psychological counseling, effectively relieve patients' pain, anxiety and other discomfort during the perioperative period, so that patients can spend the perioperative period smoothly and comfortably. The combination of traditional Chinese and western medicine and nursing have played an important role in the rehabilitation of perioperative patients, which is worthy of clinical promotion.*

**Keywords:** ALS, ERAS Concept, Nursing of Integrated Chinese and Western Medicine, Perioperative Period

ALS, also known as amyotrophic lateral sclerosis, is the most common of the four types of motor neuron disease (MND). ALS is a progressive neurodegenerative disease involving major motor neurons such as the cerebral cortex, brain stem, and spinal cord. As the neurons that control muscle movement slowly denature and die, the muscles gradually atrophy [1]. As the disease progresses, patients will gradually appear muscle weakness, muscle atrophy, difficulty swallowing, coughing when drinking water and slurred speech and other symptoms, and gradually lose the ability to exercise and take care of themselves until death. According to statistics, the incidence of ALS is about 2~4 people / 100,000 people, and the incidence of males is higher than that of females, the cure rate is zero, and the life cycle of general patients is 2~4 years [2,3].

The cause of the disease is still unknown, and experts have analyzed that it may be related to genetics, gene defects, viral infection and other factors [4,5]. ALS is difficult to detect in the early stage and difficult to diagnose, mainly assisted by electromyography, CT and MRI and muscle biopsy, and its specificity and sensitivity are not high. There is no specific drug for the treatment of ALS, which is mainly aimed at improving the quality of life and prolonging the survival period [6].

The use of therapeutic drugs can be riluzole, brain hormone and other drugs treatment and symptomatic management; Breathing training was the main condition of dyspnea. Muscle weakness and muscle atrophy can be treated with massage and massage [7]. Because the patient mainly suffered from motor nerve atrophy, the sensory nerve was not violated. Therefore, even in the later stage of the disease, the limbs can not move, can not breathe on their own, but the patient's mind is still normal, the consciousness is still clear, and the feeling is as keen as ordinary people, so the patients with this disease are very painful, psychologically very fragile, need more love and care, should provide them with a home-like environment, under the joint care of doctors, nurses, physiotherapists and patients' families. Make the patient's life have quality and dignity. Therefore, for ALS patients, good care is especially important for their recovery.

The integrated nursing of traditional Chinese and Western medicine under the concept of ERAS is the application of the holistic view of TCM and the dialectical management idea. According to the special situation of each patient, it varies according to the time and place, provides treatment based on syndrome differentiation, and formulates effective nursing programs of integrated Chinese and Western medicine, which has achieved good clinical results [8]. Our hospital has accumulated

some experience in integrated nursing of traditional Chinese and Western medicine, and it has been applied in perioperative period to accelerate the rapid recovery of surgical patients. Recently, a patient with ALS was admitted to our hospital. During the hospitalization, integrated nursing treatment of Chinese and Western medicine was given, and the perioperative period was stable and comfortable. The cases are reported as follows:

## 1. Clinical Data

### 1.1. General Information

Patient Zhu Mou, male, 25 years old, because "found that the right scrotum swollen for 20 years, accompanied by pain for 1 day." He was admitted to hospital on 1 August 2024. Symptoms: severe pain in the right scrotum, pain involved in the right lower abdomen, persistent distending pain; Frequent and urgent urination, no urination pain, no gross hematuria, no cold and fever, no nausea and vomiting, limb weakness, muscle atrophy, limited activity, unable to complete fine movements, poor sleep, self-reported occasional chest tightness at night, and occasional coughing when eating. He has a history of amyotrophic lateral sclerosis (ALS) for more than 1 year.

### 1.2. Physical Examination

General information: Admission temperature (T) 36.2°C, heart rate (P) 74 times /min, respiration (R) 17 times /min, blood pressure (BP) 115/72 mm Hg. The spirit is clear, the speech is sharp, the heart and lung auscultation is normal. When standing, the contents of the right scrotum were swollen, no swelling mass was observed in the bilateral inguinal region, no spermatic cord was swollen, an oval mass of about 10×6cm was visible in the right scrotum, hard in quality, smooth in surface, elastic and sac-like feeling, and no tenderness was felt, no obvious mass or induration was detected in the right testicle, and no swelling was detected in the left testicle epididymis by light penetration test (+). The tongue is pale red, the fur is white, the pulse is smooth.

### 1.3. Specialized Physical Examination

Proximal muscle strength of both upper limbs was grade 5, distal muscle strength was grade 4, left lower limb muscle strength was grade 4, right lower limb muscle strength was grade 4, muscle tone of both limbs was enhanced, sensation and mutual aid movement was normal, muscle atrophy of both superior and inferior sentry muscles, interscapular muscles, thenar muscles, gluteus maximus and gastrocnemius muscle existed, physiological reflex was present, muscle hyperreflexes of limbs, bilateral patellar clonus was positive, and ankle clonus was positive. Positive gnathic reflex, bilateral Rossolimo sign, bilateral Hoffmann sign, bilateral Chaddock sign negative, bilateral Oppenheim sign positive, bilateral Gordon sign negative, bilateral Babinski sign positive, right thigh can lead to fasciculation.

### 1.4. Auxiliary Examination

2023-11-01 Ultrasonography of male genitalia in our hospital Diagnostic content: right testicular hydrocele sonography.

2023-10-30 Craniocerebral TCD:1. Decreased blood flow velocity of left vertebral artery; 2. Decreased blood flow velocity

in the left anterior cerebral artery; 3. Bilateral middle cerebral artery blood flow velocity decreased. 2023-10-30 EMG of limbs: 1. Neurogenic injury of both upper and lower limbs; 2. Multiple NCS injuries in limbs (motor and sensory fibers are involved, and demyelinating injuries are obvious). 2. Proximal right median nerve or nerve root injury is possible.

2023-05-01 EMG of both lower limbs: left biceps femoris long head, biceps femoris short head, gastrocnemius muscle, anterior tibial muscle, and short extensor toe muscle: neurogenic damage, please combine clinical; The left common peroneal nerve and tibial nerve were not abnormal. Brain MRI: Bilateral pedothalamic symmetrical patchy abnormal signals, brain metabolic disorders? Right lateral ventricle posterior horn cystic shadow, choroid plexus cyst? Lumbar spine MRI: lumbar spine bone hyperplasia; Hummer's tubercles of thoracic 11-lumbo4 vertebrae; Degenerative and herniated lumbar 4/5 disc. Cervical magnetic resonance: cervical bone hyperplasia.

### 1.5. Preoperative Diagnosis

TCM diagnosis: Qi and blood deficiency syndrome of potency disease;

Western medicine diagnosis: 1. motor neurone disease (amyotrophic lateral sclerosis); 2. Hydrocele of right testicle sheath; 3. Right hydronephrosis with ureteral calculi; 4. Abnormal coagulation function; 5. Abnormal myocardial enzyme spectra; 6. Emphysema; 7. Double lung nodules; 8. Chronic inflammation of both lungs.

### 1.6. Traditional Chinese Medicine Diagnosis Analysis

"Neijing" has many chapters on the discussion of the disease, "Su Question • on the theory of potency" also made a special discussion. In terms of etiology and pathogenesis, it is advocated that "lung heat leaves jiao" and muscles lose moist; "Damp and heat do not hustle", the muscles relaxed. In terms of disease classification, according to the relationship between five viscera and five bodies, the classification methods of "flaccidity", "pulse flaccidity", "tendon flaccidity", "flesh flaccidity" and "bone flaccidity" were put forward. In terms of treatment, the principles of acupuncture and moxibustion for treating impotence are put forward, which are "treating impotence by taking Yangming alone" and "supplementing its Xingyang and Tongshu, regulating its deficiency and reality, and its reverse."

### 1.7. Communication Signature

Improve the relevant examinations before surgery, ask the Department of Neurology and anesthesiology to evaluate the relevant risks, and fully communicate with the patient and his family to sign and approve the operation after surgery.

### 1.8. Therapeutic Process

After completing preoperative preparation, she was admitted to the operating room on August 8, 2024, and underwent transurethral ureteroscopic right ureteral stone holmium laser lithotripsy + right ureteroscopic ureteral stent implantation + right testicular hydrocele inversion under general anesthesia. The operation was successful and the patient was returned to the ward after full recovery from anesthesia. On the basis

of conventional Western medicine treatment after surgery, compound TCM characteristic therapy was applied to acupoints (bilateral Sanyinjiao, Zusanli point) to clear gastrointestinal qi, strengthen the spleen and stomach; Moxibustion (Guanyuan, Qihai point) warming Yang and benefiting Qi; Traditional Chinese medicine heat Bao (abdomen) warm channel Tongluo analgesia; Ear point pressure beans (sympathetic, Shenmen point) to help sleep and pain relief; Infrared therapy (operative mouth); Improve the local blood circulation, anti-inflammatory, analgesic, promote the healing of the operative mouth, limbs atrophy muscle massage and functional exercise, accelerate the postoperative recovery. She was admitted to the operating room again on August 19, 2024 and underwent right ureteral stent implantation and removal under anesthesia through ureteroscope. She recovered well after surgery and was discharged from hospital on August 21, 2024.

## 2. Nursing

### 2.1. Nursing Evaluation

#### 2.1.1. Pain Assessment

numerical rating scale (NRS), also known as numerical analog table, 11-point numerical rating scale (NRS11), 11-point numerical pain scale. This method requires the patient to describe the pain intensity with 11 numbers ranging from 0 to 10, no pain (0 points) : no pain, can live and sleep normally; Mild pain (1 to 3 points) : mild pain, tolerable, able to live and sleep normally; Moderate pain (4 to 6 points) : the pain is obvious, affects sleep, and requires painkillers; Severe pain (7-10 points) : Severe pain that interferes with sleep, appetite, passive posture, or other symptoms and requires anesthetic analgesics. At the time of admission, the patient's NRS score was 6, indicating moderate pain.

#### 2.1.2. Self-Care Assessment

Daily living activities Self-care ability (ADL) refers to the most basic and common activities that people must carry out repeatedly every day in order to maintain survival and adapt to the living environment, including sports, self-care, communication, and housework. At present, the BarthelIndex (BI) evaluation table is widely used, and the evaluation contents are 10 items: Eating, bathing, grooming, dressing, large/urinal control, toilet use, bed chair transfer, flat walking, up and down stairs, according to the measurement score (0 ~ 100 points), patients were divided into severe, moderate, mild and no need for 4 dependence levels, which is an important reference index for clinical grading care. Accurately assess the Barthel index scale, understand the patient's self-care ability and life ability, and give the corresponding level of life care and nursing. No dependence (100 points) : completely independent life, no need to be taken care of by others; Mild dependence (61 ~ 99 points) : basic self-care, a small part of the need for care; Moderate dependence (41 ~ 60 points) : life is dependent, most of them need to be taken care of by others; Heavy dependence ( $\leq 40$  points) : life is completely dependent on others to take care of all. At this time of admission, the patient had an ADL score of 65 and was slightly dependent on others for care.

#### 2.1.3. Sleep Quality Assessment

The Pittsburgh sleep quality index (PSQI) consists of 19 self-rated questions and five questions rated by sleep peers, but scores only 19 self-rated questions. The 19 self-rating questions were composed of 7 factors ranging from 0 to 3 points, 0 points being no difficulty and 3 points being very difficult. All factor scores were added together to form the total score of the 0-21 scale. PSQI total score of 0~5 points, indicating good sleep quality; The total score was 6~10, indicating good sleep quality; The total score was 11 to 15 points, indicating that the sleep quality was average; A total score of 16 to 21 indicates poor sleep quality. The patient's PSQI score was 16 at admission, and his sleep quality was average.

#### 2.1.4. Anxiety Assessment

The anxiety self-rating scale was used to evaluate the anxiety of patients. SAS used a 4-level score to evaluate the frequency of symptoms, with "1" indicating none or very occasionally, "2" indicating sometimes, "3" indicating most of the time, and "4" indicating most or all of the time. In general, a total score of less than 50 is normal, 50-59 is mild to mild anxiety, 60-69 is moderate anxiety, and more than 70 is severe anxiety. The anxiety score of this young patient was 68 When he was hospitalized , which belonged to moderate anxiety.

#### 2.1.5. Thrombosis Risk Assessment

The Caprini score of risk factors for surgical thrombosis is a measure of individualized prevention after weighing the risk of anticoagulation and bleeding. According to different Caprini evaluation scores, the risk of postoperative VTE can be divided into very low risk (0 points), low risk (1 ~ 2 points), medium risk (3 ~ 4 points) and high risk ( $\geq 5$  points). It is generally believed that very low-risk patients can not be prevented on the basis of encouraging physical activity; Mechanical prophylaxis is recommended for low-risk patients. In patients with moderate risk, drug or mechanical prophylaxis or drug combined mechanical prophylaxis are recommended. At admission, the patient's N thrombus score was 1, indicating a low risk.

#### 2.1.6. Fall Risk Assessment

**The Morse Fall Risk Assessment Scale consists of six items on a 125-point scale, with a higher score indicating a greater risk of falling. Scores greater than 45 are classified as high risk for falls, 25 to 45 as medium risk, and less than 25 as low risk. The fall score of this patient was 15 at admission, which was low risk.**

## 2.2. Nursing Diagnosis

The contents of nursing diagnosis are as follows:

- Pain is related to hydrocele, nerves around surgical incision, qi and blood obstruction;
- Activity of daily living is related to motor nerve dysfunction, spleen deficiency and gastrointestinal dysfunction caused by ALS;
- Sleep is related to patients' long-term illness in bed, irregular life and sleep, greater mental pressure and psychological burden caused by chronic hydrocele but has not been treated;
- Anxiety is related to patients' worries about the development of

the disease, surgical pain and postoperative rehabilitation, and lack of understanding of their own disease and surgical process;

- The risk of thrombosis and falls is related to the loss of muscle strength of the limbs, the inability to walk independently from the bed, and the long-term injury of qi.

### 2.3. Nursing Plan

The method of reasoning and enlightening was used to regulate the patients' emotions and help relieve negative emotions such as pessimism and anxiety. Maintain a balanced, low-fat, high-protein, high-vitamin diet; Develop a regular life schedule; Explain the purpose patiently before treatment and nursing, improve the patient's cooperation and compliance, teach the correct understanding of the disease, and enhance the patient's confidence in overcoming the disease; Select appropriate anti-inflammatory and analgesic drugs according to the surgical incision to reduce pain score and prevent infection; Encourage patients to get out of bed more to reduce the risk of thrombosis, and teach patients and their families the correct way to prevent accidental falls; Guide the patient to exercise muscle function and respiratory function, prevent and delay neuromuscular function decline, and improve the patient's gastrointestinal function and sleep anxiety by combining the comprehensive treatment and nursing means with traditional Chinese medicine characteristics.

### 2.4. Nursing Measures

#### 2.4.1. Preoperative Care

Preoperative education is an important part of rapid rehabilitation nursing of integrated Chinese and Western medicine, which can inform patients of the rapid rehabilitation program of integrated Chinese and Western medicine and enhance their confidence and compliance.

The patient was hospitalized for the purpose of solving the hydrocele of the testis, and there were no special requirements for the operation. This case is special in that the patient is a patient with ALS, due to the decline in muscle strength of the limbs, most of the time in bed. Care should be noted in the following points:

- Psychological communication: ease communication with patients, strive to let patients put down the spiritual burden, with a positive attitude to face;
- Introduce the method and significance of the operation to the patient and his family, the feelings of the patient during the operation, etc., to eliminate the tension caused by the ignorance of the operation, inform the patient to ensure adequate sleep before the operation, and if necessary, oral sedation can be given the night before the operation according to the doctor's advice. Instruct the patient to complete various laboratory examinations (hematuria routine, blood biochemistry, coagulation function, liver and kidney function, etc.), electrocardiogram, heart color ultrasound, chest X-ray, etc.;
- Health guidance: the implementation of safety nursing measures, bed rail protection, prevention of iron bed falling bed, care points: life: keep the ward quiet, clean, soft light, temperature and humidity straight; Soak your feet in warm water and listen to leisurely and gentle music to nourish your mind; Pay attention to the change of cold and warm climate,

avoid the six uprisings outside the regular life, ensure adequate sleep, dialectical diet: diet should eat food, such as: coix seed, cucumber, celery, winter melon, etc.

- Medication care: inform the effects and precautions of the drugs used.
- Muscle function exercise and respiratory function exercise. Aerobic exercises, such as walking, tai chi, jogging, etc. help to build muscle strength and improve the symptoms of muscle atrophy. There are four types of breathing exercises: a. abdominal breathing b. Lip breathing c. Balloon blowing d. Abdominal breathing Whole body breathing exercise e. The use of respirator according to the actual patient from easy to difficult exercise.
- In accordance with the State Administration of Traditional Chinese Medicine "hypochondriac pain TCM nursing program" implementation of syndrome differentiation care, has taken the corresponding nursing measures according to the score, completed the admission education, signed the relevant notification.
- Perform bilateral inguinal and perineal surgical skin preparation as required.

#### 2.4.2. Preoperative Preparation

The detailed nursing is applied to the operating room nursing. The nursing mode is patient-centered. On the basis of improving the routine nursing measures such as preoperative preparation, intraoperative nursing and postoperative rehabilitation, the nursing work in the operating room is done well, practical and detailed, so as to avoid and reduce the risks brought by clinical nursing work.

Venous indwelling needle access was established. Venous access was first established in the right upper limb, and properly fixed to keep the intraoperative patency and ensure rescue in case of intraoperative accidents. Correctly connect ECG monitoring leads to avoid graphic interference; Correctly connect blood pressure and oxygen saturation monitoring; The blood pressure cuff was placed on the patient's left upper limb, and the cuff was appropriately relaxed. Due to the increased sensitivity of ALS patients to anesthetics, in order to ensure the safety of patients and maintain stable blood pressure, right radial artery puncture and catheterization were performed to monitor the right traumatic arterial blood pressure.

According to the needs of the operation, the patient needs to be in the lithotomy position, with the hands stretched out naturally on both sides of the body, the arms supported by the arms, and the lower limbs separated and raised by the tripod. However, due to muscle atrophy in both lower extremities and high muscle tension, the patient was too nervous after entering the room, and the whole body shook badly. The patient still could not relax after verbal reassurance was given, the lithotomy position was placed after anesthesia, and soft pads were used to protect the muscle joints. The lower extremities should not be excessively abducted, and the bony protrusions, blood vessels and nerves should be avoided. To maintain maximum functional state of the body. For those who have been in a position for a long time and may cause numbness of the limbs, a certain degree of motion should be given and appropriate massage should be given if

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necessary. Protect patient privacy by minimizing the scope and duration of privacy exposure.

#### **2.4.3. Intraoperative Nursing**

During the whole operation, the ECG monitoring and the dynamic changes of the condition were observed, and the changes of the patient's heart rate, heart rhythm, blood pressure and blood oxygen saturation were closely observed. The operating room nurse must have the ability to identify and differentiate ECG blood pressure, and inform the anesthesiologist or surgeon of any abnormality in time; Intraoperative inspection should be strengthened. Patients with general anesthesia cannot express themselves during the operation, so they need to be closely observed by anesthesiologists and itinerant nurses. Vital signs, blood loss and urine volume should be discovered and treated in time.

There should be no bubbles in the intravenous infusion set to prevent air embolism, and the intravenous liquid infusion should be replaced in time after completion. During the operation, pay attention to observe the amount of residual liquid in the pressurized irrigation bag, and replace it in time to avoid air entry. Assist the doctor to bandage the surgical incision when the operation is completed.

#### **2.4.4. Nursing during Anesthesia Recovery Period**

During anesthesia and recovery of general anesthesia patients, the recovery of spontaneous respiration and consciousness of the patients were closely observed. In this case, the patient with ALS should assist the anesthesiologist during extubation to prevent breathing weakness and coughing after extubation, prepare an aspirator, and fully attract the patient before extubation. Extubation should be performed after the patient's spontaneous breathing and muscle strength have recovered well, and the second intubation after extubation should be avoided as far as possible. After extubation, all indexes were observed to be stable, the radial artery catheter was removed, the radial artery pressure hemostat was punctured, and the conditions around the puncture site and the pulsation of the radial artery were observed. Before leaving the operating room, ALS patients must ensure that there is no residual effect of anesthesia drugs before leaving the operating room, escorted back to the ward, and the

ward nurse for bedside handover.

#### **2.4.5. Post-Operative Care**

After awakening from anesthesia, the time of water fasting should be shortened according to the concept of rapid recovery. In this case, the patient can drink and eat properly after the swallowing function is completely recovered. He was also given famotidine injection to suppress acid and protect stomach, phloroglucinol injection to relieve spasmodic pain and cefoperazone sodium and sulbactam sodium injection to prevent infection. After operation, with the characteristic therapy of traditional Chinese medicine, acupoints were applied (bilateral Sanyinjiao, Zusanli point) to clear gastrointestinal qi, strengthen the spleen and stomach; Moxibustion (Guanyuan, Qihai point) warming Yang and benefiting Qi; Traditional Chinese medicine heat Bao (abdomen) warm channel Tongluo analgesia; Ear point pressure beans (sympathetic, Shenmen point) to help sleep and pain relief; Infrared treatment (operative mouth) can improve local blood circulation, anti-inflammatory, analgesic, promote the healing of operative mouth, and accelerate postoperative recovery. Ask the patient to do appropriate body and limb activities, get out of bed early and do appropriate activities to prevent the formation of lower limb vein thrombosis. The pain score was based on the patient's facial expression or verbal description. The patient was given multimodal analgesia, including analgesic drugs and breathing training.

Follow the doctor's advice to take self-made Chinese medicine hot bag, select Yongquan point, use the same body inch point selection method, ask the patient to lie on his back and foot posture, Yongquan acupoint in the front of the foot depression of the second and third toes of the toe seam and the first third of the heel line, after heating placed on the patient's feet Yongquan point, 2 times /d, ask the patient before medication no allergic history of drugs. The pain score was based on the patient's facial expression or verbal description. The patient was given multimodal analgesia, including analgesic drugs and breathing training. During hospitalization, the patient was instructed to carry out active and passive muscle exercise, and was given massage and acupuncture to regulate qi, delaying the progression of the disease.

## 2.5. Nursing Evaluation

assessment time	pain score	self-care score	Sleep score	nxiety score	nxiety score	fall score
at admission	6	65	16	68	1	15
1 day after surgery	3	65	14	65	2	35
4 days postoperatively	1	65	13	62	1	15
Before discharge	0	65	12	60	1	15

### Score for each Indicator (Score)

The patient's 20-year hydrocele problem was solved, the mood was relaxed, and he had a deep understanding of the whole medical treatment process. Through psychological counseling, I also have a certain confidence in my future life. The patient's father also said that he was very satisfied with the medical treatment, (had been refused surgery by a number of hospitals) and said that he would accompany his son to good treatment, good life, good exercise. After the comprehensive treatment and nursing of Chinese and Western medicine, the operative wound of the patient showed no bleeding, hematoma, or infection, the muscle strength of the limbs was stable, and the pain score, insomnia score and anxiety score of the patient were improved to varying degrees (as shown in the figure above), and she was discharged successfully on August 21, 2024 without bleeding, hematoma and infection, the muscle strength of the limbs was stable, and the patient's pain score, insomnia score and anxiety score were improved to varying degrees (as shown in the figure above).

### 3. Results and Follow-Up

After discharge, the patient continued rehabilitation physiotherapy outside the hospital, and assessed and monitored his physical condition by telephone follow-up on the tenth day after discharge. The surgical wound had fully recovered, focusing on his mental state and sleep condition, knowing that the situation was similar to that at discharge, the patient and his family members were encouraged. It tells the story of the great British physicist Hawking, Hawking was diagnosed with ALS at the age of 21, but he continued to shine after the disease, and eventually died at the age of 76. Told it must adhere to functional exercise, maintain a good attitude, to be afraid of difficulties to overcome the confidence of the disease, with the development of science and technology, there will be more and more good drugs and treatment means. Keep track of the patient's dynamic changes at any time. During the follow-up, the patient was told not to stay in bed for a long time after discharge, and to get out of bed and move around as much as possible. Appropriate muscle activity is conducive to delaying the progression of limb muscle atrophy and weakness.

### 4. Discussion

ALS is a rare disease, due to the decline in physical function of patients, the self-care ability and quality of life of patients are seriously affected, causing a heavy blow and impact on patients

and their families [9]. Effective nursing measures can improve the neuronal function of patients, reduce the pain of patients, and have great significance in improving the quality of life of patients and extending the survival time [10].

Enhanced recovery after surgery (ERAS) is a series of perioperative optimization management measures based on evidence-based medicine. Since it was proposed in 2001 ERAS has experienced more than 20 years, and the concept has been optimized. As early as 2012, Chen Zhiqiang summarized the important role of TCM nursing in ERAS [11]. Through the optimization of integrated Chinese and western medicine nursing, measures such as alleviating post-operative stress reaction, reasonable pain management, early diet recovery and early activity, postoperative complications can be reduced, postoperative hospitalization time can be shortened, medical costs can be reduced, and rapid recovery can be achieved [8]. Kehlet et al. found that the effect of reducing perioperative stress reaction by a single measure was not satisfactory, and proposed to reduce trauma and stress reaction by multi-mode, multi-channel, integrated and comprehensive methods, and to optimize perioperative treatment through multidisciplinary cooperation in surgery, anesthesia, nursing and other disciplines [12]. Among them, perioperative nursing, as an important link in multidisciplinary collaboration, plays an important role in ERAS. Coupled with the support of integrated nursing and treatment of Chinese and Western medicine, indicators such as exhaust time, postoperative pain score, postoperative hospital stay and postoperative hospitalization cost of surgical patients are significantly reduced [13]. This has been confirmed in the nursing practice of Dai Mon and Gu Yechun, among which an important part is propaganda and education, which informs patients of the accelerated rehabilitation nursing plan of integrated Chinese and Western medicine, encourages patients to eat and exercise early after surgery, informs them of the significance of various TCM nursing, enhances the compliance of the implementation of the plan, and establishes confidence for patients to overcome the disease [14,15]. Embodies the humanistic care of nursing.

Pan H, Zhu J et al. proved through experiment and clinic respectively that Chinese medicine has more advantages than Western medicine in the treatment of ALS [16,17]. Luo Hui et al. concluded through clinical research literature and their own clinical practice that Chinese medicine is feasible in

controlling the condition of rare diseases, improving symptoms and syndromes, improving quality of life and even curing them [18]. The standardized clinical application of rapid rehabilitation surgery combined with traditional Chinese medicine technology can bring benefits to the postoperative rehabilitation of surgical patients, significantly speeding up the postoperative rehabilitation time of fracture patients, and significantly improving the satisfaction of patients through the meticulous care of integrated Chinese and Western medicine [19,20].

Under the concept of rapid rehabilitation surgery, the comprehensive application of traditional Chinese and western medicine in perioperative period has achieved certain results. In this case, after a comprehensive evaluation of the patient's indicators, we formulated a comprehensive treatment plan for the patient, which allowed the patient to take traditional Chinese medicine in addition to the operation and Western medicine treatment, and combined with the comprehensive treatment of traditional Chinese acupuncture, massage, external application of traditional Chinese medicine collapse, ear point pressure and rehabilitation function exercise, and then combined with effective psychological counseling. Strengthen life nursing, condition monitoring and improve surgical preparation throughout the perioperative period; Ecg monitoring was performed during the operation and the dynamic changes of the condition were observed. Postoperative monitoring of patients' vital signs, surgical puncture wound care, pre-operation prevention of complications, health education and discharge guidance can effectively relieve patients' pain, anxiety and other discomfort during the perioperative period, so that patients can spend the perioperative period smoothly and comfortably.

Chinese and Western medicine have their own strengths. Through the mutual complement and collaboration of Chinese and Western medicine, Western medicine can give full play to the advantages of Western medicine in the etiology research of rare diseases, disease diagnosis and etiological treatment, as well as the individualized diagnosis and treatment of traditional Chinese medicine under the guidance of the holistic view, which is conducive to the formation of safe and effective treatment programs in China and the advantages of health economics, which is worthy of clinical promotion.

#### **Patient Informed Consent**

The case report was published with informed consent from the patient or family.

#### **Conflict of Interest Statement**

The author declares that there is no conflict of interest in this article.

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