

# *Clinical Study on Drug Treatment of Children with Tics*

Villa Ada

*Mayo Medical School, USA*

**Keywords:** Medical Treatment, Childhood Tics, Pathogenesis Research, Clinical Research

**Abstract:** At present, the treatment of children's tics is mainly based on medical treatment. The purpose of this article is to solve some problems in the treatment of children with tics, and discuss the specific clinical effects of medications for children with tics. This article takes 30 children with tics treated in our hospital as the research object, children were randomly divided into two groups, which were treated with Chinese medicine and Western medicine respectively, and the clinical effects of children with tics under different drug treatments were analyzed using statistical methods. The results of the study show that the comprehensive treatment of children with tic syndrome has a good therapeutic effect, the clinical treatment effective rate is 90%, the children's motor tics symptoms are reduced by 45%, the vocal tics symptoms are reduced by 39%, and the adverse reactions are very small. It proves that the effectiveness of drugs in treating children's tic disorder is of great significance for improving the quality of life and learning of sick children.

## 1. Introduction

Multiple profanity tic disorder, also referred to as profanity tic disorder or profanity syndrome, is a disease that often occurs in many children during childhood. Most patients usually have symptoms such as twitching at the vocal part and twitching at the sports site. There are also psychological symptoms such as hyperactivity and compulsion. The mortality rate of patients with this chronic disease is generally about 0.2% to 1.4%. The optimal age for the patient's age to develop this disease is generally 2-12 years old. The age of onset is usually more than that of female patients. Although the English name of the onset of this disease is generally "Twitch syndrome", the symptoms and signs of these diseases are not the necessary clinical conditions for the onset of this disease. At present, most clinical scholars in our country generally advocate that the symptoms of this disease are collectively referred to as typical multiple juvenile tics. Today, the average incidence of this disease and the total number of patients have gradually increased. The mechanism of this chronic disease and many other aspects are still not very clear today. The possible occurrence of this chronic disease and its causes and social environment, psychology, nerves, genetics and other factors have a certain close relationship.

The conventional treatment of children's tics is based on the combination of Western medicine and traditional Chinese medicine [1]. The drug combination therapy can be subdivided into traditional Chinese medicine treatment and Western medicine treatment, Western medicine treatment such as dopamine phosphate receptor function blocker, selective receptor monogramming

enzyme function antagonist, central receptor alpha-monogramming receptor agonize, Anti-epileptic biologic drugs (Paracetamol) and other Chinese and Western medicine combination therapy [2]. However, there are also certain adverse reactions to the combination of Chinese and Western medicines: the dopamine phosphate receptor blocker agonize drug has certain adverse reactions. It is difficult to adhere to Western medicine treatment for a long time. Monogramming functionalism antagonist drugs have certain clinical safety problems. Patients with alpha-monogramming receptor antagonist in the center can have severe pulse motor acceleration, gastrointestinal irritation and feeling. Symptoms such as obvious aggravation of symptoms, anti-epileptic drugs are prone to serious adverse symptoms such as emotional instability, drowsiness, and hostility; in view of the above adverse reactions, traditional Chinese medicine gradually shows its unique characteristics in the clinical treatment of children with tics. The advantages of treatment, with good clinical efficacy and high safety, have developed into the best choice for most parents of children who have tried the combination of Chinese and Western medicine in the early stage [3].

In order to explore the clinical effect of drug treatment of children with tics, this article consulted a large number of related materials. Among them, Yang made a detailed introduction to the pathogenesis of children's multiple tics, analyzed the current problems in the medical system for treating children's tics, and elaborated the research methods and techniques for children's tics [4]. Sciutto pointed out in the article that in today's medical technology has great limitations, medical treatment is the main means of treating children's tics, and medical treatment is divided into traditional Chinese medicine treatment and western medicine treatment, two kinds of medical treatment methods have their own advantages and disadvantages [5]. In the article, Páraga elaborated several medical methods for treating children's tics, and pointed out the problems of each treatment method, and at the same time gave technical guidance to solve these problems [6]. Tamura proposed that Western medicine treatment of children with tics will cause some adverse reactions and have certain side effects. Traditional Chinese medicine treatment is a stable treatment method with little side effects, high safety and significant effects [7]. In this article, Gerardi analyzed the etiology and influencing factors of children's tics, and introduced the current research status of children's tics in China, pointing out the direction for future related research [8].

In the study of drug treatment of children with tics, this article summarizes and analyzes the research experience and achievements of a large number of predecessors. In addition, this article has made some innovations in the research content and research methods. The specific innovations are as follows: First, this article for the first time, the clinical effect was analyzed according to the change of symptoms before and after the treatment of children's tics. The visual scoring method (VAS score) was used to evaluate the clinical treatment of children with tics. The observation results were more accurate and objective. Second, this article is the first to adopt a retrospective analysis method to statistically analyze the clinical medical records of 30 patients with tics who meet the inclusion and exclusion criteria of this study, and assign different drug treatment programs to make the research results more realistic and objective. Third, this article is the first to combine Western medicine treatment and Chinese medicine treatment together, and do a systematic analysis of the clinical effect, to achieve a significant improvement in the treatment of children with tics.

## **2. Etiology, Pathology and Treatment**

### **2.1 Etiology and Pathogenesis of Children's Tics**

#### **(1) Genetic factors**

Multiple childhood tic disease is a neurological or psychiatric genetic disease with a pronounced genetic transmission tendency that is prevalent in childhood and childhood, and its main genetic transmission method has been clinically researched to show that it tends to dominate normal

chromosomes. Inheritance in a manner is accompanied by incomplete genetic ancestral, and there is a significant gender difference between complete ancestral. The survey results of a large number of family members of patients show that in the immediate family members of people with multiple brain tics, the common manifestation is the early history of multiple brain tics [9]. The results of the family census found that 55% of children with ovarian twitch syndrome have a family history of identical positive fertility. Among them, the incidence of homosexual fraternal or twins at the same time is 70%, and the opposite sex is identical or twins. At the same time, the chance of suffering from the disease is about 24%. It further proves that multiple childhood tics is related to children's genetics.

#### (2) Biochemical factors

Research and analysis results indicate that various central neurotransmitter abnormalities may often play an important role in suppressing factors in the process of suppressing the onset of physiological development of epilepsy, and the main causes of inhibition may be a variety of acetaminophen, serotonin, prolongation abnormal transmitters and other transmitters [10]. The main metabolic product of serotonin is its metabolic chemical reaction. Its product is mainly a pair of relatively mild noise-causing acetaminophen acid, and this activity is found in some acute tics or children's tautological cerebration fluid. The content of the substance is still low, which may be due to the inhibition of brain feedback function caused by the serotonin-stimulated receptor hypersensitivity or due to the dehydration of the serotonin receptor neuron itself. Children with tic symptoms may also suffer from inadequate secretion of adjacent acetaminophen crinoline and decreased activity levels, resulting in dysfunction of the balance function between dopamine and adjacent acetaminophen crinoline in the central nervous system, which may cause inappropriateness. The tic behavior disorder occurs. Curette disease is mainly due to the receptor at the pathological response site may be a receptor located on the cell membrane of the mistrial dopamine functionalism system, because of its excessive response to dopamine receptor activity or receptor dopamine can produce excessive receptors caused by sensitivity.

#### (3) Psychological factors

Strong mental stimulation is a risk factor for the development of tics. Almost all children have severe symptoms of tics when their mental stress is too high or excessively nervous. Some scholars have used psychotherapy and drug treatment to treat tic disorders. The treatment study of the child found that the psychological treatment is better than the drug treatment, safe and without side effects. This shows that relieving children's psychological pressure through psychological counseling is also an effective auxiliary treatment method [11].

#### (4) Cervical spine injury

In recent years, literature studies have reported that the onset of cervical twitch symptoms in children is related to the local cervical spine injury, especially the severe injury of the upper and lower jaws. Damage to the bones, joints and ligaments of the cervical spine may also directly cause damage to the peripheral nervous tissue and the nerves, blood vessels, and sympathetic nervous system in the neck and spinal cord. Acute neck discomfort, spinal cord injury symptoms, and radical symptoms of neuralgia. And its important clinical manifestations such as insufficient blood supply to the heart, brain and blood vessels.

#### (5) Damaged immune system

Clinical practice observation research has found that some children with tic disorder have progressively worsening or repeated symptoms of brain tic disorder after each upper respiratory tract infection. Some pediatricians generally believe that this is mainly due to the presence of immune cell autoimmune antibodies in the brain dysfunction, that is, the decrease of immune cell autoimmune antibody function level and the massive production of autoimmune antibody collagen antibody or nuclear virus antibody after immune virus or other bacteria invade infection, resulting

in impaired brain neuron function and repeated symptoms of tic disorder in children.

## 2.2 Treatment of Children with Tics

### (1) Medical abatement

Drug treatment can be divided into Western medicine treatment and Chinese medicine treatment. Western medicine for the treatment of undergraduate diseases generally advocates long-term symptomatic treatment. Commonly used therapeutic drugs in the clinic include, for example, taking periodontal, liabilities, cloudiness, cosine which can effectively make most school-age children appear. The symptoms of multiple lower extremity tics are significantly reduced, but the adverse reactions are obvious, which can easily lead to severe sleepiness, cognitive retardation, and extra pyramidal systemic reactions in children; especially the clinical side effects of taking periodontal are very obvious. Aggravation after taking can lead to excessive physical fatigue, poor mood. Parkinson's syndrome, mental retardation, memory dysfunction, personality structure changes, meditation and other adverse reactions, long-term high-dose medications can cause dull multiple lower limbs exercise over dysfunction [12].

Chinese medicine summarizes the symptoms of tic syndrome in children into two types: liver and kidney yin deficiency and heart and spleen deficiency. Sizing Shijiazhuang Pills add and subtract heart-spleen and kidney-deficiency syndromes of kidney and yang, and treat kidney and tonify kidney, hi, heart and blood and strengthen the spleen. For example, the usage of traditional. Chinese medicine is to take oral fluorescent on the basis of diagnosis of traditional Chinese medicine, once a day, and take oral Weill traditional Chinese medicine soup and Zingy Beibei brake blood circulation soup such as Dang, Huang Sui, dragon bone, mu spider, white peony repelling, the total effective rate of treatment was 93.3% on average.

### (2) Psychotherapy

Mental twitch psychotherapy is currently an important treatment method for treating typical early childhood multiple tics. The main purpose of its work is to get support and help children with epilepsy quickly eliminate various psychological problems, reduce anxiety, depression and other negative psychological emotions, so that the body of children with epilepsy can better adapt to our social life surroundings. Psychological treatment of mental illness often requires the active cooperation of parents and teachers in order to better achieve psychological effects. First of all, we must pay attention to let parents and teachers fully understand the main incidence and characteristics of pediatric multiple cardinal tic syndrome, and we must pay attention to the children who are sick and ask for treatment methods. The child will easily cause mental and psychological stress in children with epilepsy and aggravate the child's condition. Do not always intentionally remind the child of hugs, nagging and other adverse symptoms that make the child twitch.

### (3) Operation treatment

Patients with leg tic disease who are not well-treated with drug therapy may consider trying twitch surgery at this time. Medical surgical experts recommend the use of hysterectomy twitch surgery for the treatment of children with refractory diseases. Leg tics can be observed, 30 among the effective patients, 26 were effective, and 4 were ineffective. The overall efficiency coefficient was 88.1%. Before each operation, 2 weeks after surgery, 3 after surgery, and monthly. Yale's three comprehensive facial twitch severity score scale methods were used for comprehensive scoring. The tics degree score and the total severity of tics were significantly reduced compared with those before surgery, which had significant statistical significance ( $p < 0.01$ ). Based on the clinical application of hysterectomy orientation, the selective integrated frequency method targets hypermarket condensation pale balls coagulate crus, internal cysts and forelimbs and comprehensive application of Yale child comprehensive tic twitch before and after surgery. The

degree assessment scale and its evaluation results have important statistical facts, and there is no obvious damage to the mental development of children, and there are no sequential of early surgical treatment, which proves that it is effective and feasible to treat acute children's tic syndrome before and after surgery.

### 3. Research Related to Drug Therapy

#### 3.1 Research Object Selection

In this experiment, the clinical medical records of 30 patients with tics treated in our hospital from May 2018 to June 2019 were selected as the research object. Inclusion criteria: those who meet the diagnostic criteria of childhood tic syndrome, those with normal electrolytes, electrocardiograms and routine examinations; those with severe organic lesions such as heart, brain, liver and renal blood vessels are excluded. It can be divided into a new type of Western medicine clinical combined drug treatment type and a new type of Chinese medicine clinical combined drug treatment type according to the clinical use of combined drug treatment dosage and combined treatment drug use method. There were 18 cases of severe type 2 diabetes and 12 cases of females; the age of the course of combined treatment was generally determined to be 2-10 years old, and the average age of the course of combined treatment was generally  $(4 \pm 0.6)$  years; the average course of treatment was 0.5-3.0 years, average. The course of the disease was  $(1.5 \pm 0.5)$  years; 15 cases (50%) of children with transient tics, 15 cases (33%) of chronic tics, and 5 cases (17%) of children with transient tics. The first group of sick children was divided into two groups, each group of 15 people. The first group of children was treated with respirator, which included 9 cases of male tics and 6 women; the second group mainly used more Clinical methods of combined application of traditional Chinese medicines, including 9 cases of male patients with early clinical onset and 6 cases of females; the average clinical treatment age is generally 2-10 years in the first group, and the average clinical age is  $(3.9 \pm 0.8)$  years old; the clinical course of the second group generally lasts 1 to 2.5 years.

#### 3.2 Inclusion Criteria

Inclusion of diagnostic criteria: (1). The child has a variety of sports-like tics and vocal tics, which is consistent with the diagnosis and treatment criteria of multiple phlegm-fire disturbing tics in adolescent children in Western medicine in China. (2). Multiple phlegm-fire disturbing twitching symptoms in adolescents have frequent attacks, powerful twitching, and phlegm in the larynx, and the children have irritability, irritability, eating fat, and constipation. (3). No other central nerves Patients with a history of sexual diseases or mental system-type diseases and drug allergies. (4). People with normal intelligence development test level. (5). People with no epilepsy cerebation discharge in the patient's electroencephalogram medical examination test results. (6). The age of the child is in the range of 2-12 years old. (7).The child and the parent should inform the situation and agree.

#### 3.3 Drug Treatment

Western medicine treatment group: Respirator (Nanjing Kaiser Pharmaceutical Co., Ltd. product) was used in the Western medicine treatment group, 30 mg / tablet. Orally, every sick child starts with a small dose (1-2) mg kg d. The dosage is increased once a week (1-2) mg / kg, and the target dose (3-5) mg / kg. Follow up every 4 weeks, record the efficacy and adverse reactions.

Chinese medicine treatment group: the Chinese medicine treatment group selected earnings oral

liquid (100 mg / piece) for clinical observation of children with multiple tics. Methods: 15 children with epilepsy were randomly divided into traditional Chinese medicine treatment group and clinical control group, a group of 7 people. In the Chinese medicine treatment group, children were given Oral Tiber Shinning Oral Liquid, 1 bottle / time, 2 times / day for children under 3 years of age; 2 bottle / time, 2 times / day for children over 3-7 years old ; Children over 7 years old, 2 / times, 3 times / day; the treatment control group was given oral. The initial dose was 100mg, 2 times / day, according to the serious deterioration of the disease, the dose was appropriately increased, and the final the dosage is generally controlled at 300 ~ 500mg / day.

### 3.4 Evaluation Index

In this paper, the method of ditsy score reduction rate is used as the main evaluation and measurement standard for the clinical efficacy of children with tics during the treatment of this subject. Score reduction rate=(effective ore-treatment score-effective post-treatment score)/effective ore-treatment score $\times$ 100%. Among them, if the score reduction rate is less than 20%, it can be judged that the score reduction is invalid; if the score reduction effective rate is 20% ~ 60%, the score reduction judgment is valid; where the score reduction effective rate is 60% ~ 80%. Which can be judged to be markedly effective; if the effective rate of score reduction is  $\geq$ 80%, it can be judged that the score is cured.

### 3.5 Statistical Method

After the data in this study are verified to be correct, a macro logy database is established, and the data in the macro logy data database is expressed with an accuracy  $x \pm s$  angle. The Cabinetmaker formal test was used to verify the normality of multiple sets of data results. The analysis of variance was not used for the comparison of the means between the multiple groups. There was no display of the mean between the multiple groups. The data results were obtained and saved.

### 3.6 Research Result

*Table 1: Comparison of recovery between Chinese medicine treatment group and Western medicine treatment group*

Group	Get well	Marked effect	Effective	Invalid	Proportion
Chinese Medicine Group	65 $\pm$ 0.68	153 $\pm$ 0.58	289 $\pm$ 2.14	108 $\pm$ 2.15	365 $\pm$ 5.42
Western Medicine Group	52 $\pm$ 0.59	168 $\pm$ 0.98	285 $\pm$ 3.56	142 $\pm$ 3.74	328 $\pm$ 3.75
T	3.85	2.74	1.26	4.11	3.66
P	P>0.05	P<0.05	P<0.01	P<0.05	P>0.05

The linear scores of the overall severity scale of patients with Yale King's tics treated before and after treatment in both groups were significantly higher than those in the linear comparison, and the differences were more significant and statistically significant ( $p<0.05$ ). After the Chinese medicine treatment group and the Western medicine treatment group were treated, the clinical overall severity significance scale of the elderly. Vaudeville tic syndrome was linearly compared, and there was no significance and statistical significance ( $p>0.05$ ). Due to the significant difference in dispersion between the main factors that affect the score of the scale, the standard deviation of the dispersion in the scale score is large. After the statistical data analysis of the treatment group, the large standard deviation directly affects the test results and shows that the two groups of measures. There is no significant difference in the score level of the table. Table 1 shows the comparison of recovery between the Chinese medicine treatment group and the Western medicine treatment group.

## 4. Analysis and Discussion of Drug Treatment of Children with Tics

### 4.1 Analysis of Clinical Results of Drug Treatment of Children with Tics

The results of the study showed that the total positive rate of the clinical symptoms of the children with multiple tic syndrome before and after treatment in the two groups of Western medicine combined treatment group and the Chinese medicine combined treatment control group was positive. The difference has a certain statistical significance, indicating that the Western medicine treatment group and the Chinese medicine control group have a significant effect. Among them, the average age of serum protein after clinical treatment of traditional Chinese medicine in the clinical experimental group was 78.45% before the treatment of traditional Chinese medicine in the clinical experimental group, and 50.3% after treatment.  $p > 0.05$ . The statistical analysis results showed no significant positive difference on average, indicating that the combined treatment of Chinese and western medicine in the clinical experimental group had no significant adverse effect on the positive level of serum protein total age and its decline. Relevant data of serum levels of children with tics before and after drug treatment are shown in Table 2.

Table 2: Relevant data of serum levels of children with tics before and after drug treatment

Group	Total serum	Lipid blood pressure	Positive rate(%)
Chinese Medicine Group	85.3×104	148±0.335	75.1
Western Medicine Group	91.2×104	136±0.285	85.2
Control group	105.4×104	130±0.279	69.5

Comparison of the total efficacy of the two groups before and after drug treatment. The total effective rate of twitching in the Chinese medicine treatment control group was 90.0%, and the total effective rate in the Western medicine treatment control group was 88.4%. The significant difference is statistically significant, indicating that the overall efficacy of the two groups in the treatment of multiple tics is basically the same; the comparison of the efficacy of motor vocal tics and Western medicine before and after drug treatment in the two groups, and the traditional Chinese medicine treatment group. The effective rate of Western medicine is 95.3%, the active vocal twitch before and after the Western medicine treatment control group and the effective rate of Western medicine are 90.8%, respectively. The overall efficacy of the treatment control group in terms of front-to-back exercise twitch treatment is significantly better than that of other western medicine twitch treatment control groups. The study found that Chinese medicine for treating children's tics is better than Western medicine for treating children's tics. The relevant data is shown in Figure 1.

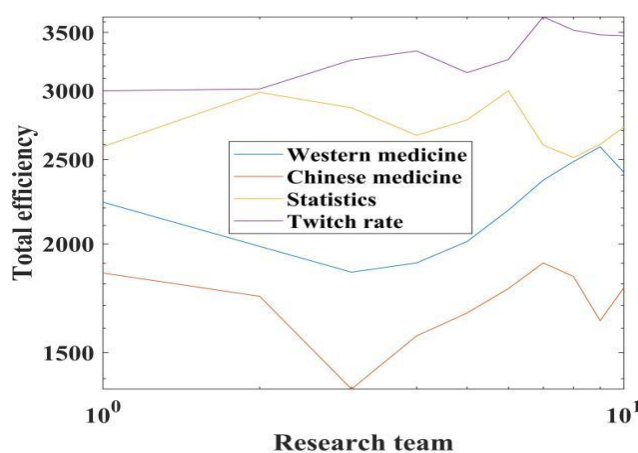


Figure 1: Chinese medicine for treating children's tics is better than Western medicine for children's tics

From the data in Figure 1, it can be seen that Chinese medicine treatment of children's tics is better than Western medicine treatment of children's tics. The total effective rate of the Chinese medicine treatment group is 90.0%, and the total effective rate of the Western medicine treatment group is 88.4%. The effective rate of exercise tics in the Chinese medicine treatment group was 95.3%, the effective rate of exercise tics in the Western medicine treatment group was 90.8%, the total effective rate of vocal tics in the Chinese medicine treatment group was 91.6%, and the total effective rate of vocal tics was 82.7%.

The study found that the incidence of adverse reactions in the Chinese medicine treatment group was 5.03%, and the incidence of adverse reactions in the Western medicine treatment group was 12.27%,  $p < 0.01$ , indicating that the incidence of adverse reactions in the control and Chinese medicine treatment groups was significantly lower than that in the control and Western medicine treatment groups. There was no abnormality in the safety test indexes of EEG after medication between the two groups,  $p > 0.05$ , no significant difference. The symptoms of all patients were relatively mild, and no more symptoms appeared after insisting on taking the medicine. The results of the three routine examinations of the safety of all the control groups before and after treatment showed that there were 2 cases of abnormalities after treatment, and the symptoms were a significant decrease in the number of white blood cells in the blood. Cooperate with the three routine oral injections of vitamin d310mg, 3 times a day, blood after 1 week the review is back to normal. After the clinical study of the control group, a total of 28 patients with follow-up treatment were followed up. The long-term follow-up group of the Chinese medicine combination treatment 15 cases were followed up for a recurrence rate of 9.8%. The long-term follow-up group of the Chinese and Western medicine combined treatment group was 13 cases 23.3%, the long-term efficacy of the two groups was significantly different,  $p < 0.05$ . There is a certain difference between the clinical adverse reaction rate and the recurrence rate of traditional Chinese medicine treatment and western medicine treatment of children's tics. The specific data is shown in Figure 2.

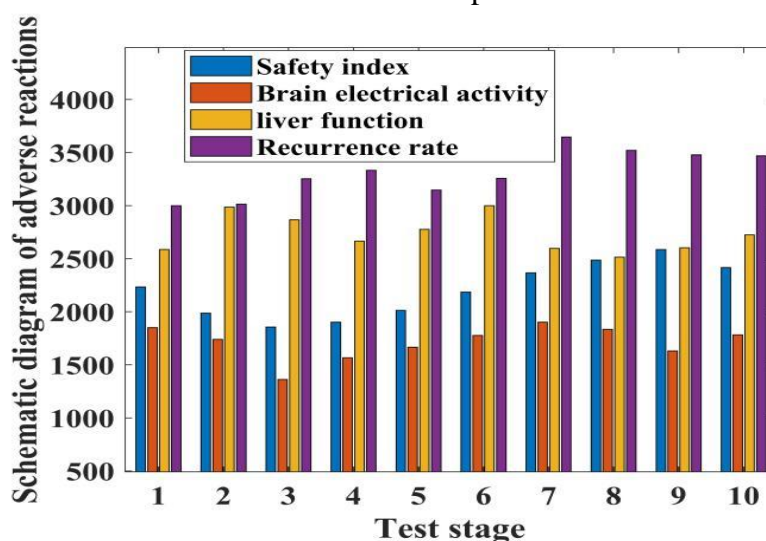


Figure 2: There is a certain difference between the rate of adverse reactions and the rate of recurrence

From the data in Figure 2, it can be seen that there is a certain difference between the clinical adverse reaction rate and recurrence rate of traditional Chinese medicine treatment and western medicine treatment of children's tics. The recurrence rate was 9.8%; the relapse rate in the Western medicine treatment group was 23.3%.



## 4.2 Discussion on Drug Treatment of Children with Tics

Through various studies in this article, it has been found that children's tics disease has a great relationship with the environment, immunity, genetics, biochemistry and other aspects. For the treatment of this disease, patients should be diagnosed at an early stage and treated with reasonable drugs. The types of western medicines currently used to treat this disease include patronize, perpetrated, terabit, periodontal and other drugs. Among them, periodontal is a commonly used drug in clinical practice. Rebound, and there are certain toxic side effects, can be supplemented with some Chinese medicine for treatment, not only can greatly help patients reduce the irritation and toxic side effects of drugs, but also can greatly help patients improve the efficacy of drugs, children and parents. More consideration should be given to the selection of drugs and methods for comprehensive treatment to achieve better results. The cause of tension-type children's withdrawal syndrome is that the patient's body will have a lot of psychological pressure in the psychological aspect, and it will always make the patient have a nervous psychological and state performance, and the patient will often show a strong inferiority psychological state and state. Most of them have unhealthy psychological aspects such as depression and anxiety. The psychological concentration and situation of the patients are not concentrated enough. The social aspects also lack communication. Therefore, while giving the appropriate patient physicians appropriate medical psychotherapy, other physicians should also be given psychological guidance and intervention. The study found that the combination of traditional Chinese medicine and western medicine has the best treatment effect on children with tics. The relevant data is shown in Figure 3.

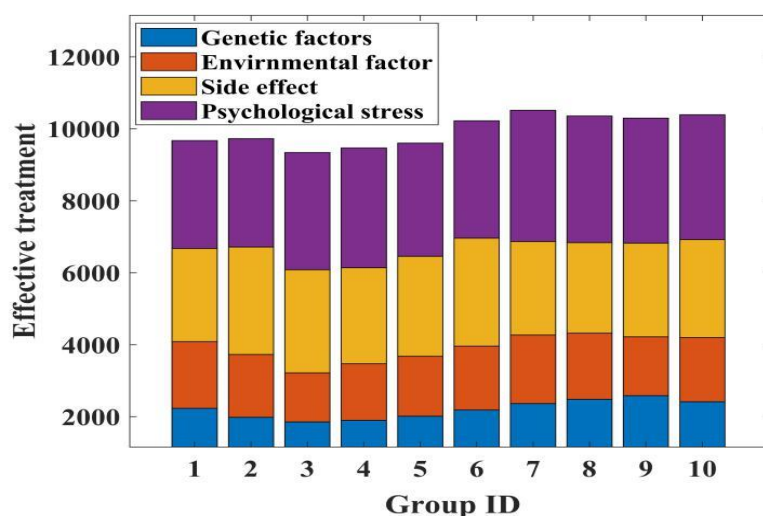
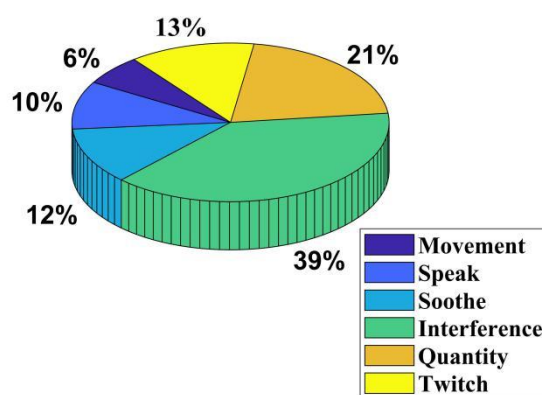


Figure 3: Comprehensive drug therapy has the best treatment effect on children with tics

From the data in Figure 3, it can be seen that the combination of traditional Chinese medicine and Western medicine is the best for the treatment of childhood tics, and the effective rate of clinical treatment of the drug comprehensive treatment is 90%.

In recent years, the clinical efficacy of traditional Chinese medicine for the treatment of children's tic dysfunction is more prominent, and the children's adverse reactions to the prevention and treatment of traditional Chinese medicine drugs reflected in relevant literature and reports are very few, reflecting and highlighting the common use of traditional Chinese medicine drugs in children. The importance and advantages of the diagnosis and treatment of this disease. A variety of important chemical components in traditional Chinese medicine have a calming and calming effect on the central brain tissue and neurotically system of the human body. The main chemical

component of volatile oil Castries is positive for the central brain tissue and neurotransmitter system. It has anti-aging and Tropicana effects. At the same time, traditional Chinese medicine can also be combined with tulip powder for the treatment of children with tics. This important formula has the effects of expectoration, enlightening and condensing. Hurrah pills, filing granules have the effect of reducing phlegm and clearing heat, which has positive therapeutic significance for preventing hypoxia tic syndrome. Chechen powder, Ishim pill can dissipate phlegm, clear away heat, relieve liver and hi, and can be used in combination with traditional Chinese medicines such as Tianjin, Papaya, Shunning, Gastronomic, and Uncap. However, at present, there are still some outstanding problems in the clinical research of traditional Chinese medicines on the treatment of children with this disease, and the literature and reports are mostly the summary of the clinical experience of traditional Chinese medicine specialists everywhere. There is a lack of experimental research and verification of the relevant theories and foundations of traditional Chinese medicine. The mechanism of the efficacy of tic disorders, the clinical names of drugs used, the diagnostic criteria, the classification of syndrome differentiation, and the criteria for judging the efficacy of tic disorders have not been completely unified. Therefore, it is recommended that in the future, Chinese medicine should further improve the basic clinical experimental research on the tic disorder of various medical specialists, and strengthen the research on the mechanism of the pharmacology of tic disorder and the long-term efficacy and safety of commonly used drugs in traditional Chinese medicine. The results of the study show that drug treatment of children's tics has a good effect on reducing children's tics. The correlation is shown in Figure 4.



*Figure 4: Drug treatment of children's tics has a good effect on reducing children's tics*

As can be seen from Figure 4, medical treatment of children's tics has a better effect on reducing children's tics. Under medical treatment, children's motor tics are reduced by 45%, and vocal tics are reduced by 39%.

## 5. Conclusions

(1) Children's tics are a common disease among children. It is a chronic mental illness that occurs in childhood. Children's tics are related to genetic factors, psychological factors, immune system damage, neurotic disorders, etc. Medical treatment is the mainstay, which is divided into Chinese medicine treatment and Western medicine treatment. Compared with Western medicine treatment, Chinese medicine treatment is more effective, has fewer side effects, and has a lower recurrence rate.

(2) The results of the study show that the comprehensive treatment of children with tic syndrome has a good therapeutic effect, the clinical treatment effective rate is 90%, the children's motor tics symptoms are reduced by 45%, the vocal tics symptoms are reduced by 39%, and the adverse reactions are very small. It proves that the effectiveness of drugs in treating children's tic disorder is of great significance for improving the quality of life and learning of sick children.

(3) The study found that TCM treatment of children's tics is better than Western medicine for children's tics. The effective rate of treatment in the traditional Chinese medicine treatment group is 90.0%, and the effective rate of treatment in the western medicine treatment group is 88.4%. The effective rate of exercise tics in the Chinese medicine treatment group was 95.3%, the effective rate of exercise tics in the Western medicine treatment group was 90.8%, the total effective rate of vocal tics in the Chinese medicine treatment group was 91.6%, and the total effective rate of vocal tics was 82.7%. There is a certain difference between the clinical adverse reaction rate and recurrence rate of traditional Chinese medicine treatment and western medicine treatment of children's tics. The adverse reaction rate of the traditional Chinese medicine treatment group is 5.03%, the adverse reaction rate of the western medicine treatment group is 12.27%, and the traditional medicine treatment group's tic disorder relapse rate is 9.8%. The recurrence rate of tics in the treatment group was 23.3%.

## References

- [1] Howland, Robert H. (2016). "Use of Atypical Antipsychotics in Children and Adolescents", *Journal of Psychosocial Nursing & Mental Health Services*, 43(8), 15-18. DOI: 10.3928/02793695-20050801-06
- [2] Zhu Y, Li Y G, Wang J B. (2015). "Causes, Features, and Outcomes of Drug-Induced Liver Injury in 69 Children from China", *Gut and Liver*, 9(4), 525-533. DOI: 10.5009/gnl14184
- [3] Kaur N, Kumar P, Jamwal S. (2016). "Tetrabenazine: Spotlight on Drug Review", *Annals of Neurosciences*, 23(3), 176-185.
- [4] Yang Bin. (2015). "The Use of the Deep Circumflex Iliac Vessel Pedicle Bone Grafting for the Treatment of Aseptic Necrosis of the Femoral Head in Young and Middle Aged Patients", *Clinical Genetics*, 26(26), pp.39-43.
- [5] Scitutto, M. J. (2015). "ADHD Knowledge, Misconceptions, and Treatment Acceptability", *Journal of Attention Disorders*, 19(2), 91-98. DOI: 10.1177/1087054713493316
- [6] Párraga-Martínez, Ignacio, López-Torres-Hidalgo, Jesús D, del Campo-del Campo, José M. (2015). "Long-Term Effects of Plant Stanols on the Lipid Profile of Patients with Hypercholesterolemia. A Randomized Clinical Trial", *Revista Española De Cardiología*, 68(8), 665-671. DOI: 10.1016/j.rec.2014.07.035
- [7] Tamura H, Miyauchi K, Dohi T. (2016). "Comparison of Clinical and Angiographic Outcomes After Bare Metal Stents and Drug-Eluting Stents Following Rotational Atherectomy", *International Heart Journal*, 57(2), 150-157. DOI: 10.1536/ihj.15-222
- [8] Gerardi M C, Atzeni F, Batticciotto A. (2016). "The Safety of Pregabalin in the Treatment of Fibromyalgia", *Expert Opinion on Drug Safety*, 15(11), 1541-1548. DOI: 10.1080/14740338.2016.1242575
- [9] Gomberg-Maitland M, Schilz R, Mediratta A. (2015). "Phase I Safety Study of Ranolazine in Pulmonary Arterial Hypertension", *Pulmonary Circulation*, 5(4), 691-700. DOI: 10.1086/683813
- [10] Gopinathannair R, Etheridge SP, Marchlinski FE. (2015). "Arrhythmia-Induced Cardiomyopathies: Mechanisms, Recognition, and Management", *Journal of the American College of Cardiology*, 66(15), 1714-1728. DOI: 10.1016/j.jacc.2015.08.038

- [11] Heinrich A K, Lucas H, Schindler L. (2016). "Improved Tumor-Specific Drug Accumulation by Polymer Therapeutics with pH-Sensitive Drug Release Overcomes Chemotherapy Resistance", *Molecular Cancer Therapeutics*, 15(5), 998-1007. DOI: 10.1158/1535-7163.mct-15-0824
- [12] Staecker H, Maxwell K S, Morris J R. (2015). "Selecting Appropriate Dose Regimens for AM-101 in the Intratympanic Treatment of Acute Inner Ear Tinnitus", *Audiology & Neurotology*, 20(3), 172-182. DOI: 10.1159/000369608