

# Clinical Study of Toutongning Capsule Combined with Instant Cardio-reliever Pills and Metoprolol in the Treatment of Migraine

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**ABSTRACT Objective:** To observe the clinical effect of Toutongning capsule combined with Instant Cardio-reliever pills, metoprolol in the treatment of migraine. **Method:** 150 cases of migraine were randomly divided into 3 groups, 50 cases in the treatment group. Using the headache Ning capsule combined with Instant Cardio-reliever pills, metoprolol treatment. The control group A 50 cases, metoprolol combined with flunarizine hydrochloride treatment. The control group B 50 cases, the application of the town of brain Ning capsule combined with quick acting to save the heart pill treatment, observation and comparison of 3 groups of migraine patients after treatment efficacy and symptom classification comparison. **Results:** After treatment in January, the effect of migraine in treatment group was significantly higher than that of the two control group ( $p < 0.05$ ), and the symptom grade of treatment group was significantly improved compared with that of control group ( $p < 0.01$ ). **Conclusion:** Headache Ning capsule combined with Instant Cardio-reliever pills, metoprolol in the treatment of migraine has significant curative effect, effective control of headache and to improve the quality of life in patients with migraine, and the safety is high, not prone to side effects, provides a new way to cure the ills of migraine.

## KEYWORDS

Toutongning capsule  
Instant cardio-reliever pills  
Migraine

## 1. Introduction

For migraine (migraine) of the disease, its clinical is a primary headache types are common, the main clinical manifestations of paroxysmal severe headache and headache, beating, mostly belonging to the lateral type, time of onset usually lasts for four hours to seventy-two hours or so, in the course of disease often accompanied by nausea and vomiting and other symptoms, in daily life, some irritating light, sound and other external interference or degree of disorder, other daily activities are likely to aggravate migraine so, migraine patients need quiet environment treatment, the rest of the way to a certain extent, ease the patients with migraine headache. And migraine is a com-

mon chronic neurological disease, the general incidence of the group in adolescence or children, and the incidence of major female migraine patients, in the course of the investigation found that the ratio between men and women in the clinical incidence of migraine patients is about 3 to ten percent, and in a certain extent, there is a genetic phenomenon. And migraine is one of common diseases in the Department of internal medicine, due to repeated attacks, severe pain, serious impact on the work of migraine patients, so that the quality of life of migraine patients. We use Toutongning capsule combined with Instant Cardio-reliever pills, metoprolol in the treatment of migraine, obtain satisfactory curative effect [1].

## 2. Materials and methods

### 2.1. General information

From March 2008 to December 2013, 150 patients with migraine were treated in our hospital. Case selection: (1) In line with the 2004 headache classification of the 2<sup>nd</sup> edition of migraine diagnosis standard; (2) Eliminate the tension headaches, cluster headache, intracranial pressure (ICP) increased headache and low intracranial pressure

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headache, intracranial infection etc. primary and secondary other headache. 2 weeks before admission, the patients were stopped taking all the drugs. The headache symptom ratings according to the 1988 International Headache Society standard, grade I no pain, grade II mild headache, but does not affect the activity, grade III moderate pain, but does not stop the activity, grade IV severe pain cannot take part in the activity.

## 2.2. Method

150 cases of migraine were randomly divided into three groups, the treatment group (50 cases), given a headache Ning Capsule (Xianyang Buchang Pharmaceutical Co., Ltd. production) 3 capsules each time, 3 times a day orally; Instant Cardio-reliever pills (Tianjin Pharmaceutical Company production) 10 pills each time, 3 times a day orally; metoprolol (Advaita Kang Pharmaceutical Co., Ltd. is the production) 25 mg per time, 2 times a day. Control group A 50 cases, the application of the town of Ning capsules 4 capsules each time, 3 times a day, 10 capsules each time, 3 times a day orally. The control group were given metoprolol B50 25 mg each time, 2 times a day, each time 10 mg flunarizine hydrochloride, orally 1 times every night. 3 groups of migraine patients with a total of 30 days [2].

## 2.3. Efficacy criteria

According to standard of 2008 edition migraine of neural disease diagnosis and treatment, after treatment of migraine symptoms 2-5 days eliminated, along with accompanying symptoms also eliminate, within 1 year without recurrence is effective, the treatment after symptoms disappeared or relieved, only to mental stress and fatigue had occasional seizures, and modulating 2-3 days after

symptoms disappear is effective; the symptoms and signs improved slightly, but the onset of frequency and the past effect than there are no changes to the invalid.

## 2.4. Statistical processing

All data were statistically analyzed by SPSS 12.0 software, and the *t* test was used in the treatment of the patients before and after treatment.

## 3. Results

### 3.1. Comparison of three groups of patients with migraine

After 30 days treatment, the effective rate was 72% in the treatment group and 56% in the control group, and the control group B was 58%. The total effective rate was 94% in the treatment group and 72% in the control group, and 76% in the control group B. The effective rate of the treatment group was significantly higher than that of the control group, A, B, there was significant difference ( $p < 0.05$ ), the total effective rate was very significant difference compared with the two control groups ( $p < 0.01$ ), see Table 1 and Table 2.

### 3.2. Contrast the data of three groups of the migraine patients before and after treatment

Compared with before treatment, the treatment group showed significant improvement and difference in the grading of symptoms ( $p < 0.05$ ). Showing significant difference as compared with that before treatment ( $p < 0.05$ ), the control group A and B were also apparently improved. Compared with the grading of symptoms of the control group A and B, the treatment group's improvement was more significant ( $p < 0.01$ ). See Table 3.

**Table 1.** Comparison of the efficacy of A in treatment group and control group [n (%)].

Group	n	Excellence	Effective	Invalid	Total effective
Treatment group	50	36 (72.00) <sup>*</sup>	11 (22.00)	3 (6.00)	47 (94.00) <sup>**</sup>
Control group A	50	28 (56.00)	8 (16.00)	14 (28.00)	36 (72.00)

Note: <sup>\*</sup> $p < 0.05$ , <sup>\*\*</sup> $p < 0.01$ .

**Table 2.** Comparison of the efficacy of B in treatment group and control group [n (%)].

Group	n	Excellence	Effective	Invalid	Total effective
Treatment group	50	36 (72.00) <sup>*</sup>	11 (22.00)	3 (6.00)	47 (94.00) <sup>**</sup>
Control group A	50	29 (58.00)	9 (18.00)	12 (24.00)	38 (76.00)

Note: <sup>\*</sup> $p < 0.05$ , <sup>\*\*</sup> $p < 0.01$ .

**Table 3.** Comparison of symptom classification of migraine in three groups ( $\bar{x} \pm s$ ).

Group	n	Before treatment				After treatment				<i>t</i>	<i>p</i>
		I	II	III	IV	I	II	III	IV		
Treatment group	50	0	11	23	16 <sup>*</sup>	42	5	3	0 <sup>**</sup>	9.40	< 0.05
Control group A	50	0	10	24	16	23	17	8	2	6.67	< 0.05
Control group B	50	0	12	23	15	25	13	9	3	4.91	< 0.05

Note: <sup>\*</sup> $p > 0.05$ ; <sup>\*\*</sup> $p < 0.01$ .

### 3.3. The recrudescence rate of half a year between three groups of the migraine patients

Compared with the control group A and B, the treatment group has low recurrence rate, the improvement was so significant ( $p < 0.01$ ). See Table 4.

**Table 4.** Comparison of half year recurrence rate in migraine patients ( $x \pm s$ ).

Group	Relapse within half a year	Recurrence rate (n%)
Treatment group	4	8
Control group A	9	18
Control group B	11	22
$t$ (A)	-	3.20
$t$ (B)	-	4.12
$p$ (A)	-	< 0.01
$p$ (B)	-	< 0.01

### 3.4. Adverse reactions

In the course of nursing and clinical investigation of three groups of migraine patients, the patients were not found adverse reactions in the treatment process.

## 4. Discussion

Migraine is due to various internal and external factors acting on the nerve and blood vessels and the central nervous system and vascular dysfunction. The etiology and pathogenesis of this disease is not very clear. There is a spasm of the blood vessels during the migraine attack, which can lead to cerebral ischemia and nerve function damage. Autonomic dysfunction, that is, sympathetic and parasympathetic dysfunction [3]. The scientific study confirmed that the platelet aggregation of patients with migraine is easier to gather, and release adrenaline, norepinephrine, peanut four acid and A2. These substances can further promote the platelet aggregation, which can produce a large number of blood vessels, shrink the blood vessels, reduce cerebral blood flow. Toutongning capsule have gastrodin, tuckahoe, Radix Polygoni Multiflori, angelica, scorpion etc.. The gastrodin can increase in arterial blood flow, inhibit platelet aggregation, improve cerebral circulation, regulate nerve metabolism, with loose, antispasmodic effect on arterial smooth muscle, can regulate vasomotor function, alleviate headache; tuckahoe has analgesic effect; Radix Polygoni Multiflori with lipid with Angelica; antioxidation, platelet aggregation, inhibition the role of free radicals; the scorpion can pass through the blood brain barrier, directly on the site with headache, antispasmodic and analgesic efficacy of strong; Instant Cardio-reliever pills oral rapid onset, the main ingredients of Rhizoma Chuanxiong, borneol, mechanism of treating migraine is blood stasis, blood vessels, relieve vascular spasm, reduce vascular resistance, improve microcirculation, reduce the capillary permeability, the platelet aggregation and adsorption capacity decreased, reducing blood viscosity [4,5]. Metoprolol early inhibition of

migraine cortical surface arteriolar spasm, vascular dilation and exacerbation can inhibit beta receptor mediated inhibition of migraine, nerve excitability enhancement, balance, regulating sympathetic parasympathetic nerve function, the combination of three drugs, with the combination of Chinese and Western medicine, complementary and mutual assistance at the same time, taking into account all the major aspects of migraine, ensure the treatment of missing points, does not exist in the process of treatment of migraine in this way, not only to a certain extent, can quickly relieve migraine pain, but also good effect on consolidation, enhance the patient's own ability to resist disease, greatly reduce the recurrence rate, Co good effect, no obvious adverse reactions, the treatment for it has played a key role, but also an innovation of new treatment methods.

## 5. Conclusion

As mentioned above, in the clinical, the incidence of migraine between men and women is about 1:2–3, the prevalence of the population is about five percent to ten percent, and to some extent, the phenomenon of genetic. Migraine is a neurological department of internal medicine and one of the common diseases, due to recurrent, severe pain, migraine patients seriously affect the work and study, so the need for appropriate treatment of, through clinical research found that, for the treatment of migraine, Toutongning capsule combined with available Kyushin Pills, metoprolol in the treatment of migraine curative effect is relatively significant, can effectively control the headache, to maximize the quality of life of patients with migraine, and in the process of drug use, drug side effects caused by the small, and can be quickly for the treatment of migraine, and high safety, repeated phenomenon is not easy to appear, for the cure of migraine ills, it provides a new way of thinking, is the gospel of migraine patients.

## Conflicts of interest

These authors have no conflicts of interest to declare.

## Authors' contributions

These authors contributed equally to this work.

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