English title: Influence of hypnosis therapy on recovery of hemorrhagic stroke

**Chinese title (Google Translate):** Effect of Hypnotherapy on Rehabilitation of Hemorrhagic Stroke

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## **Translation notes:**

The text below is translated from Chinese using Google Translate. Comments are added to clarify particularly critical and difficult-to-understand passages, with the help of a Chinese-English bilingual. The original tables are pasted below the translated tables. Table 4-7 use the same setup as table 2-3, so these were not translated. The word "Sleep" is a wrong translation of "hypnosis" - it does not mean Sleep in chinese. The statistics are poorly conducted (analysis of interaction effects is of primary importance here, yet none such are reported), poorly reported and poorly translated in the text body. Since the tables are clear enough, no attempt was made to clarify the text body.

The journal is a "core journal", meaning that is accepted as a scientific journal in China. It is unclear whether it's peer reviewed in the available information about the journal. As of now (May, 2017) it has impact factors of 0.10 and 0.18.

# **Chinese abstract (Google Translate):**

Objective To investigate the effect of hypnotherapy on the efficacy and rehabilitation of hemorrhagic stroke. Methods 120 patients with hemorrhagic stroke were randomly divided into two groups Routine group (n = 71) and hypnotic group (n = 49). Both groups were given health education, supportive psychological care, hypnosis group, in addition to give hypnotherapy, Group of efficacy. Results The efficacy, anxiety and depression of neurological function were significantly improved in the hypnotic group (P < 0.05). Conclusion Hypnotherapy Help to promote the rehabilitation of neurological function in patients with hemorrhagic stroke, reduce the patient's anxiety, depression, promote patient rehabilitation, improve the quality of life.

Keywords: stroke; hemorrhagic; hypnotherapy; rehabilitation

## **English abstract:**

Objective: To discuss the influence of hypnosis therapy on efficacy and recovery of hemorrhagic stroke. Methods: 120 cases of hemorrhagic stroke patients were divided into routine treatment group (71 cases) and hypnosis group (49 cases) at random. Both groups were given health education and supportive psychological care. The hypnosis therapy were also applied in the hypnosis group to observe their curative effects. Results: The hypnosis therapy helped to promote recovery of nerve function of the hemorrhagic stroke patients, reduce levels of anxiety and depression of the patients, and enhance quality of life. Conclusion: Hypnotherapy helps to promote nerve function in patients with hemorrhagic stroke rehabilitation, to reduce patient anxiety, depression, and promote rehabilitation of patients and quality of life.

## **Chinese article (Google Translate):**

Hemorrhagic stroke mainly includes cerebral hemorrhage and subarachnoid Blood, with high incidence, high mortality, high morbidity, high recurrence rate, More complications of the characteristics of its occurrence in a very short period of time lead to Healthy limb dysfunction: hemiplegia or language disorders, dysphagia And so on, the patient to bear the psychological pressure is huge, but also because of treatment Cost, poor prognosis, slow recovery process, prone to coke depression, useless A sense of disappointment and other depressed mood [1]. And negative emotions in turn affect the impact Its rehabilitation process. At present, more and more reports confirm the psychological dryness Efficacy and the importance of its pre-rehabilitation process [2 to 13], but the specific dry There are differences in the pre-method, the domestic has not yet used the use of hypnosis therapy out Bloody stroke of psychological intervention reported that we were on the basis of predecessors On the given hypnotherapy, to obtain a certain effect, are reported as follows:

#### 1 Clinical data

- **1.1** The object of this study are derived from February 2008 ~ February 2010 in our hospital neurosurgery hospitalized treatment of hemorrhagic Stroke in 120 patients, into the standard: (1) the first occurrence of hemorrhagic Stroke, confirmed by clinical brain CT / MRI are in line with the national fourth Making session Conference on cerebrovascular disease diagnostic criteria [14]. (2) all After the patient's physical condition is basically stable, the patient consciousness is clear, check together For. Exclusion criteria: coma, aphasia, serious cognitive dysfunction, disease Pregnancy can not accept the interviewer, serious heart, liver, kidney dysfunction, Past history of mental illness, the first 3 months before the application of antidepressants And antipsychotics. subjects were randomly divided into three groups nosis group and conventional group, each group of 60 cases. After the hypnosis group 11 cases for a variety of reasons do not accept hypnosis treatment, given conventional treatment, Classified as a regular group. Aged 41 to 78 years, mean (64.3  $\pm$  7.21) year old. The average length of hospital stay was 71.5 days. Education level of college 17 cases, 23 cases of primary school, junior high school 42 cases, high In the (secondary) 38 cases; bleeding site: basal ganglia hemorrhage in 38 cases, Cyst hemorrhage in 31 cases, 19 cases of lobar hemorrhage, cerebellar hemorrhage in 7 cases, thalamus Bleeding in 25 cases, brain stem hemorrhage in 3 cases. Two groups of age, gender culture There was no statistically significant difference between the degree and the stroke (P > 0.05).
- **1.2** Treatment of both groups after admission were treated with surgery And routine care, all patients in the physical condition is basically stable 1 week into Group, admission, the two groups were given health education, supportive psychological care Reason [18], That is, to provide patients with spiritual comfort or help. Hypnosis group In addition to hypnotherapy. Specific measures are as follows:

## **1.2.1** Supportive psychological care

**1.2.1.1** Establish a good nurse-patient relationship, training patients to health care workers Members of the trust [1] contact with the patient during medical staff to maintain good Good mood and good mood, to give patients a high degree of compassion, fully rationale Solve the patient's state of mind, to dignified instrument, warm language, skilled Communication skills, take the initiative to introduce the

hospital environment, ward facilities and the The hospital system and precautions to stabilize patient mood, shorten the nurse the distance between.

- **1.2.1.2** For patients to create a good resting environment, clean, Ventilation of the ward, the appropriate light, temperature and humidity, temperature to 18 °C  $\sim$  22 °C, relative humidity of 40% to 50% is appropriate, low sound, air Fresh, can improve the comfort of the environment. Nurses should ensure that the sick room is quiet, Respectively, the placement of patients with severity, treatment and care operations as much as possible to avoid, avoid Do not affect the patient's mood and rest.
- **1.2.1.3** implement effective nurse-patient communication, focus on communication skills Move, patiently and sincerely communicate with the patient to understand their psychological dynamics, Correctly grooming, such as hemorrhagic stroke after depression in patients with slow thinking, words Language to reduce or slow, then nurses to understand and observe the patient's details Thinking activities and performance, listening and encouraging patients to talk about their own Problems, say their feelings, from the language and behavior to give support, Encourage, let the patient realize that the disease itself is not terrible, overcome the disease Will indelible, positive emotions help to improve disease resistance, so that The patient can actively cooperate with the treatment, enhance confidence, thus promoting Kang complex.
- **1.2.1.4** Use of care, persuasion, enlighten, encourage, etc., methods Help patients to understand the problem, improve the psychological anxiety and depression. Resistant Heart to treat the patient's emotions repeated, pay attention to protect the patient's self-esteem, Nu To understand the patient's inner activities and needs, and promptly encourage patients to make trouble Who are determined to exercise their will and establish the determination to overcome the disease And perseverance, digging the greatest potential, active rehabilitation training.
- **1.2.2 Health education [16]** Every Tuesday and Thursday afternoon by health education People on the ward patients focus on health knowledge lectures, 1 h / times. Detailed to patients and their families to explain the cause of cerebral hemorrhage, clinical table Present, drug treatment, surgical treatment, development and prognosis, to explain the psychological Health basic knowledge and emotional adjustment methods, and actively help patients dig Health potential. Different orders for different patients or the same patient Section, the content of the mission is different, and the development of appropriate care plan And rehabilitation measures. Show hands and teach patients and their families Early rehabilitation training, including active training and passive training. Simultaneously Giving appropriate commitment and comfort to the patient to understand and accept as soon as possible from Tense fear out, actively with the treatment and care.
- **1.2.3 Hypnosis group:** 2 times a week hypnotherapy. By the acquirer Two hypocritical professional psychotherapists to operate. The Body operation process: treatment in a quiet, clean, dim light reminder Sleep treatment indoors. Patients without infusion, the loose patient service, are mining Take your arms in your arms on both sides of your body. In words The patient into the hypnotic state (3) according to the patient's specific circumstances, choose Different implied inducement, to eliminate the patient's bad mood. (4) According to The specific circumstances of the patient, adding different

induction words to promote rehabilitation. (5) to lift the hypnosis (6) to guide the patient to self-relaxation. (7) every rule Treatment time for 30 to 40 minutes, 10 times for a course of treatment.

- **1.3 Assessment method:** according to the 1995 fourth national cerebral blood Quality of clinical neurological deficits in stroke patients Standard and efficacy evaluation criteria "before and after treatment to evaluate the efficacy. ② self-rating depression scale (SDS) and anxiety self-rating scale (SAS) assessment Patients with mood changes [17].
- **1.4 Follow-up and statistical methods:** were followed for each of the patients in each group Follow-up, 1 week after the onset of hemorrhagic stroke, 12 weeks were entered Assessment of neurological deficits, depression, and anxiety. Twelve weeks To evaluate the efficacy. SPSS13.0 software package to carry on the data analysis.

#### 2 Results

**2.1** Comparison of the efficacy of hypnotic group and conventional group of neurological rehabilitation Sleep group in the rehabilitation of neurological function is superior to the conventional group (P < 0.05) See Table 1.

Table 1 group of nerve function rehabilitation efficacy comparison

Group	n	Get well	nificant prog	Progress	Invalid	Z	Р	
Hypnosis	49	29	15	14	1			
Regular	71	27	29	13	2	-2.35	0.02	

表 1 组神经功能康复疗效比较

组别	n	痊愈	显著进步	进步	无效	z	Р
催眠组	49	29	15	14	1		_
常规组	71	27	29	13	2	-2. 35	0 02

**2.2** hypnotized group with conventional group before and after treatment of Barthel index There was no difference in the Barthel index between the two groups before treatment (P = 0.59 P > 0.05). 12w compared to the two groups were significantly improved compared to 1w, poor (T = 12.81 P = 0.00 < 0.01), Compared with the hypnosis group, the two groups were significantly higher than the conventional group, the difference was statistically significant (P < 0.05), (see Table 2 and 3).

Table 2 Two groups of patients with hemorrhagic stroke before and after treatment of the Barthel index Compare  $(x \pm s)$ 

Group	N	Barthel pre	Barthel post	t	р
Hypnosis	49	42.41 ± 10.05	63.98±14.27	-16.21	0.00
Regular	71	41.13±9.80	52.77±12.99	-24.10	0.00

表 2 两组出血性脑卒中患者治疗前、后 Barthe 指数的比较(x±s)

组别	例数	Barthe ‡	Barthe <u>þ</u>	t	Р
催眠组	49	42 41 ±10. 05	63. 98±14 <i>2</i> 7	-16 21	0 00
常规组	71	43 13 ±9. 80	52 77±12 99	-24 10	0 00

Table 3 between the two groups of patients with hemorrhagic stroke before and after treatment of Barthel index group Compare  $(x \pm s)$ 

Test	Hypnosis	Regular	t	Р
Barthel pre	42.41 ± 10.05	41.13±9.80	-0.54	0.59
Barthel post	63.98±14.27	52.77±12.99	-2.18	0.03

表 3 两组出血性脑卒中患者治疗前、后 Barthell指数组间的比较 ( $x\pm s$ )

组别	催眠组	常规组	t	Р
Barthelı	42 41 $\pm$ 10. 05	43. 13±9 80	-0 54	0 59
Barthe <u>þ</u>	63 98 $\pm$ 14. 27	52 77±12 99	-2 18	0 03

**2.3** hypnosis group and conventional group before intervention, after anxiety, depression compared There was no significant difference in anxiety and depression scores between the two groups before treatment (1w) (P > 0.05), 12w compared to the two groups were significantly different (P < 0.01), 12w Compared with the conventional group, the difference was statistically significant (P < 0.01). 05) (see Tables 4, 5, 6, 7).

Table 4 patients with hemorrhagic stroke before and after treatment of two groups of patients with SAS score Group comparison ( $x \pm s$ )

表 4 出血性脑卒中患者治疗前后两组患者 SAS评分组内比较(~x±s)

组别	n	SASı	SAS <sub>2</sub>	t	Р
催眠组	49	40 12±8 72	24 82 ±5. 43	18 29	0.00
常规组	71	38 92 $\pm$ 10 17	32 52 $\pm$ 5. 60	10 81	0.00

Table 5 patients with hemorrhagic stroke before and after treatment of the two groups of patients SAS score group Compare  $(x \pm s)$ 

表 5 出血性脑卒中患者治疗前后两组患者 SAS评分组间比较(¬x±s)

组别	催眠组	常规组	t	
SASı	40 12±8 72	38 92±10 17	0 49	0 63
SAS2	$24\ 82\pm 5\ 43$	$32\ 52\pm 5\ 60$	2 42	0 02

Table 6 hemorrhagic stroke patients before and after treatment of two groups of patients within the SDS score group Compare ( $x \pm s$ )

表 6 出血性脑卒中患者治疗前后两组患者 SDS评分组内比较(¬x±s)

组别	n	SDSI	SDS2	t	Р
催眠组	49	0 52±0 09	0 31±0.07	10 09	0.00
常规组	71	0.48±0 09	0 42±0.07	8 84	0.00

Table 7 Hemorrhagic stroke patients before and after treatment of two groups of patients between the SDS score group Compare  $(x \pm s)$ 

表 7 出血性脑卒中患者治疗前后两组患者 SDS评分组间比较(~x+s)

组别	催眠组	常规组	t	Р
SDS1	0.52±0.09	0 48±0.09	1 84	0.07
$SDS_2$	$0.31\pm0.07$	0 42±0.07	2 09	0.04

## 3 Discussion

Stroke is a serious physical hazard to human health - There is "non-dead or disabled" argument, often accompanied by depression or anxiety has become One of the important complications of stroke. Reported in the literature [1, 2, 4, 6, 13], stroke Depression and anxiety state will seriously affect the recovery of neurological function and day Recurrence of daily living ability. And further confirmed that depression and anxiety The degree of heavy and slow down the slow, the degree of neurological deficits, daily Living ability was significantly lower, rehabilitation time extended. Timely psychological Treatment is an important means of treating psychological disorders after stroke. Research result Display [1 to 9, 12, 13, 16], take psychological treatment, not only can help patients Analyze the cause, eliminate doubts, improve confidence, and help patients to enhance Psychological coping ability, thereby reducing the patient's anxiety, depression, change Good and bad mood, improve the quality of life. Psychological intervention in the treatment of cerebral blood The effectiveness and importance of the overall treatment of disease is internationally recognized, and And it has become an acute cerebrovascular disease rehabilitation system is essential The treatment means. Several studies have pointed out [1 to 13, 15, 16]: psychological intervention can Enough to reduce the morbidity of cerebrovascular disease, 90% of patients can be born daily Self-care, health spending. But related to specific psychological intervention or Treatment methods are more general or psychological treatment is not yet very determine. For the efficacy of cognitive behavioral therapy has been reported [16, 18]. China has not yet seen the application of hypnotherapy in hemorrhagic stroke reported. Hypnosis therapy is the use of certain hypnotic techniques to make people into the hypnotic State, and with a positive hint to control the patient's mental state and behavior of one Psychotherapy. In the hypnotic state, with a mild, brief, clear Make sure that language, inspire and guide the patient to play self and self and positive Sex, so that it does not go through logical judgments and accept hints. So tune The whole of their own psychological state, cultivate positive, optimistic, struggling to self Consciousness, to improve the mood, so that the state of mind and body to achieve a balance. This article is passed Two groups of control observation, based on neurosurgical treatment plus reminder Sleep therapy, can improve the effective treatment rate, is conducive to improving the patient's neurological work Can restore the degree of relief and treatment of patients with anxiety, depression, to do May promote the rehabilitation of patients, improve the quality of life to create favorable conditions. But also confirmed that hypnotherapy is practicable, can be in the stroke In the psychological intervention in the promotion

and application.

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